

PUBLISHED EVERY FRIDAY

AT

33, TOHILL STREET, WESTMINSTER, LONDON, S.W.1

Telegraphic Address: "TRAZETTE PARL., LONDON"

Telephone No.: WHITEHALL 9233 (12 lines)

Branch Offices:

GLASGOW: 87, UNION STREET

Telephone: Central 4648

NEWCASTLE-ON-TYNE: 4, ROYAL ARCADE, PILGRIM STREET

Telephone: Newcastle-on-Tyne 22239

MANCHESTER: CENTURY HOUSE, ST. PETER'S SQUARE

Telephone: Central 3101

BIRMINGHAM: 81, EDMUND STREET

Telephone: Central 3049

Annual subscription payable in advance and postage free

British Isles and Abroad £2 5s. 0d.

Single Copies One Shilling

Registered at the General Post Office, London, as a Newspaper

Vol. 91 No. 2

FRIDAY, JULY 8, 1949

CONTENTS

Editorial Notes	29
New Railways for London	31
The Railway Wage Impasse	32
British Railways Costs	32
Goods Transport by Road	33
British Transport Commission Traffic Receipts	33
Letters to the Editor	34
The Scrap Heap	36
Overseas Railway Affairs—South Africa—Rhodesia—Ceylon—United States—Argentina—Switzerland—Italy—Holland—Norway—U.S.S.R.	38
Publications Received	39
Motive Power Requirements of Colonial Railways	40
Interesting Bridge Reconstruction in France	41
The New "Broadway Limited"	42
Treatment of Underground Coach Seats	45
Roll-out Battery Box for Railway Carriages	46
Personal	47
Railway Students' Association Convention	49
British Transport Commission Statistics	50
Staff and Labour Matters	52
Parliamentary Notes	53
Notes and News	54

BRITISH TRANSPORT
DIRECTORY OF OFFICIALS

For reference purposes "The Railway Gazette" has compiled a list of members of the Ministry of Transport, the British Transport Commission, the Railway Executive, the London Transport Executive, the Road Transport Executive, the Docks & Inland Waterways Executive, and the Hotels Executive, together with their principal officers, so far as they have been announced.

PRICE ONE SHILLING

THE RAILWAY GAZETTE

33, TOHILL STREET, WESTMINSTER, S.W.1

British Transport Commission's Accounts

In our last week's issue we recorded the statement by the Minister of Transport that the first annual accounts of the British Transport Commission was nearing completion, and his hope that it would be possible to make final arrangements for their presentation to the House of Commons before the Summer Recess. Publication of the accounts, together with the annual report of the Commission, is expected by the end of August. Under private enterprise the four main-line railway companies produced their figures in time for the meetings to be held in March of each year. Admittedly, the task facing the accountants of the British Transport Commission is much greater, but clearly for the first year of operation it will not be possible to produce anything approaching accounts in their final form. On the road haulage side, for example, the first year of the Commission's operations included only a part of the undertakings which have now been acquired. Road passenger transport has only just achieved the dignity of having a separate Executive. It would be in the public interest for the results of the various sections of the Commission's business to be given in as much detail as possible. If separate detailed accounts of revenue and expenditure for each of the Executives are included, it will give some indication as to how, for example, the railways have fared under State ownership. The time is still far ahead when it will be possible to talk of transport receipts as a whole. The process of co-ordination of the various forms is still in its infancy, and so far the Commission is merely the governing body of a group of specialised transport businesses.

* * * *

Sir Charles Newton Praises South African Railways

Sir Charles Newton, former Chief General Manager of the London & North Eastern Railway, has spent eighteen months in South Africa as Chairman of the Railway Rating Policy Committee. He is now in Cape Town working on the final stages of the Committee's report, which will be handed to the Minister of Transport before the end of the year. He considers that "the South African Railways compare favourably with those in Great Britain or on the Continent. The efficiency in passenger and freight services is of a high standard and the 'Blue Train' is superb." He was impressed by the operating side and said that "curvature and the 3 ft. 6 in. gauge do not appear to have been seriously limiting factors. . . . The high speeds of British trains may be unattainable, but goods train loads are very much greater and operating standards high. The South African Railways have been fortunate in their engineers, who have overcome topographical and other handicaps with vision, courage, and skill." Sir Charles Newton added that only with co-ordination of transport under a central control could conflicting interests be reconciled and the service motive placed in proper relation to the requirements of a community. He paid a tribute to the courtesy and helpfulness of railway officials who had prepared a volume of information which had greatly assisted in the deliberations of the Committee.

* * * *

Colonial Railway Extension and Modernisation

A recent Government publication* gives interesting details of railway construction and development in the Colonies. The greatest length of new mileage is in Tanganyika, 296 miles, of which 60 have already been laid. It includes branches to Mpanda lead mines, and to Kongwa from the Tanganyika Central line, and the "groundnut" railway inland from Mikindani in the Southern Province. Tanganyika is to have an outlet through Mombasa by a connection between the Tanganyika Central and the main Kenya-Uganda railway. As already recorded in our columns, alternative routes are being surveyed for a line between Rhodesia and East Africa and for a possible route to connect the Rhodesian railways with Mikindani to develop Nyasaland and the northern parts of Northern Rhodesia by providing them with a new port. In Sierra Leone, the realignment and relaying of the railway, as recommended in a report completed early last year and described in our issue of February 25, is being

considered. The whole of the equipment of the former Bermuda Railway is being shipped at a cost of some £130,000 to British Guiana, where a programme of railway rehabilitation and improvement has been approved. Great strides have been made in Malaya, where large quantities of equipment and rolling stock ordered since the liberation of the country are now coming forward. The Malayan Railway can now handle the traffic offering, although the standard of passenger services is not yet back to pre-war.

* * * *

Overseas Railway Traffics

During May, net revenues of the Canadian National and Canadian Pacific railways fell by £788,000 and £107,500, respectively, after taking into account further increases in working expenses. Operating revenues of the C.N.R. were up by £240,250, at £10,046,000, and C.P.R. gross earnings rose by £566,750 to £7,618,000. The advance in C.N.R. operating expenses amounted to £547,750, at £9,896,750, and C.P.R. working expenses for the month were £7,404,500, as compared with £6,730,250 last year. On the aggregate, C.N.R. net revenues now are £2,348,750 lower than for the equivalent 21 weeks of 1948 and C.P.R. are lower by £366,500. After a long period of declining traffics, United of Havana recorded an increase of \$14,746 during the week ended June 11. Receipts for the week amounted to \$231,311; though for the current 49 weeks they are down by \$4,659,951, at \$13,733,928. South African Railways receipts for the week ended June 4 were £1,536,076, as compared with £1,319,086 last year, and the total for the nine weeks to date was £13,440,780, an increase of £1,246,854.

* * * *

Indian Government Railways and Partitioning

While paying tribute to the thoroughness and expedition with which the severance of both the former North Western and Bengal-Assam railways was accomplished, we think that some appreciation should be recorded of the physical and mental strain endured by the railway staffs, resulting from the dismemberment of these systems, and the grafting of the severed limbs on to other existing stocks. Their life's work had been directed towards the attainment of efficiency, and part of their reward was its achievement, until suddenly there came the sweeping changes. Leaving aside the cases of those who lost all, these changes were mainly a test of adaptability to altered circumstances, but for the British they also signalled the end of an epoch. Many had to shape their lives to a future full of uncertainty, and in some cases anxiety and even hardship, particularly members of the old-established and largely specialised Anglo-Indian and Domiciled European communities. Their contribution to the new order in India and Pakistan, though it was made mainly in the past and is not spectacular, is real and deserves to be recorded and recognised.

* * * *

Importance of Public Transport in City Planning

Among the several aspects of transport in Glasgow studied at the twelfth annual convention of the Railway Students' Association, which is reported elsewhere in this issue, was the part it is to play in the redevelopment plans for that city. In a paper dealing with this subject, Mr. Armour, Assistant to the City Engineer, pointed out that planning must be adjustable to changing circumstances. To consider that it was possible to proceed with plans which would be unaffected by any early developments could be costly in an age when changes were occurring daily. He considered that public transport must not lag in the development of a city and its surrounding metropolitan area; if the transport arteries were weak, the city would not readily thrive. In most cities, the conditions under which persons travelled from home to place of employment were generally far from satisfactory. If action was not taken, he thought, there was likely to be an increasing use of private cars for such daily journeys, and the arterial roads might become overloaded. In Glasgow, proposals for public transport included direct communication from the city centre to main areas of residence by existing railway and arterial road, and the use of special high-speed rail vehicles, reference to which was made in our September 10, 1948, issue.

Colonial Motive Power Problems

With a practical knowledge of the capabilities of diesel rail traction acquired during the past twelve years the Ceylon Government Railway is now considering a proposal to replace steam by diesel power. Types of diesel-electric locomotives contemplated for Ceylon were referred to in an Overseas note in our April 15 issue. This week, Mr. G. V. O. Bulkeley, former General Manager of the Nigerian Railway, discusses the motive power requirements of Colonial railways in general, outlining some of the advantages and disadvantages of steam and diesel-electric traction under certain overseas conditions. Colonial railways have their own peculiar problems of finance, traffic density, climate, etc., and we agree with Mr. Bulkeley that it would be of real help to a number of other railways working under somewhat similar conditions if the Ceylon Government Railway—and other railways too—were to publish details of experience with diesel power, together with the comparative costs on a common haulage basis of both diesel-electric and modern steam power. True comparison is possible only in this way, because conditions in different countries and territories vary widely, especially as regards maintenance and servicing opportunities, and the relative availability and cost of steam coal and diesel fuel oil.

* * * *

Pennsylvania Railroad Enterprise

Travellers in the United States have benefited considerably in recent years as a result of increasing competition between all forms of transport and by reason of the healthy rivalry existing between railways themselves. Elsewhere in this issue we give a brief description of the new rolling stock introduced by the Pennsylvania for the "Broadway Limited" which runs between New York and Chicago and competes with the "Twentieth Century Limited" of the New York Central. This is the first Pennsylvania train of this type for which entirely new stock has been provided since the war, and, though no day coaches are included, there is no extra fare apart from supplements for sleeping accommodation of various types. Designed by Pennsylvania engineers, the coaches are fitted with tight-lock couplings to ensure smooth starting and stopping, and other features include double window panes to reflect heat rays, individual temperature control in the sleeper compartments—some of which have twin beds—and a lounge car where refreshments also are served. Restaurant car design has received special attention, and the sliding doors between each car, controlled by foot treadles, operate automatically as waiters pass to and from the kitchen. This means quicker meal service and at the same time ensures minimum interference with the temperature of the cars.

* * * *

Manchester-Marylebone Expresses

Comment has been made recently in our editorial and correspondence columns on the withdrawal of the Eastern Region 2.20 p.m. train from Manchester to Marylebone, and the substitution of a service at 11.30 a.m. Any variation in the somewhat stereotyped G.C. timetable is remarkable, for the new named trains are only minor variations of pre-war facilities, and is especially so when the service concerned is as venerable an institution as an after-lunch express from Manchester to London. There was a 2 p.m. up in the first G.C. London main-line timetables of March 15, 1899, which shared with the 1.15 p.m. down the then fastest timing of 5 hr., and the distinction of being described as "Special Express" in the Manchester-Sheffield section of the table. On the other hand, a mid-morning up train (11.25 a.m. from Manchester Central in those days) was one of the new services in the accelerations of July, 1904, and was additional to the after-lunch departure, which by then was at 2.15 p.m. The latter train outlived the 11.25, and in 1939 was making the Manchester-London journey in 4 hr. 18 min. It was the up equivalent of the 3.20 p.m. down, and when it reappeared after the recent war retained a non-stop run from Leicester as a reminder of its earlier experience. Nothing has been done so far to raise the 3.20 down towards its own former eminence, and now that its long-established up partner has disappeared, its prospects seem less hopeful than before.

New Railways for London

THE working party of Members and Chief Officers of the Railway and London Transport Executives, appointed in 1948 to review the proposals for railway improvements put forward by the Railway (London Plan) Committee set up in 1944, has published its report on railway construction and development advocated in Greater London.* The working party consisted of Messrs. V. M. Barrington-Ward (Chairman), Member of the Railway Executive; A. B. B. Valentine, Member of the London Transport Executive; J. L. Harrington, Chief Officer (Administration), Railway Executive; F. G. Maxwell, Operating Manager (Railways), Railway Executive; F. A. A. Menzler, Chief Development & Research Officer, London Transport Executive; E. W. Rostern, Chief Officer (Eastern Group Operating), Railway Executive; and D. McKenna (Secretary), then Development & Research Officer, and now Rolling Stock Superintendent (Railways), London Transport Executive. Its recommendations have been accepted in principle by the British Transport Commission.

The new plan is a successor to the Railway (London) Plan which was described in our issue of May 10, 1946. The working party had wider terms of reference than the 1944 committee, which was appointed primarily to survey the repercussions of the County of London Plan on London railways, more particularly the proposals in that plan to abolish Charing Cross, Blackfriars and Cannon Street railway bridges, and it was therefore able to tackle the problem on a wider basis. The working party did not feel bound to accept the basic proposition which governed its predecessor, and although it concurs in the removal of Blackfriars railway bridge for town-planning reasons and in its replacement by a passenger and goods tube, it does not see its way to recommend the abolition of the other two bridges and suggests that they and the termini concerned be retained and re-designed.

The following are the new lines recommended. The term "full-size tube" denotes that the tubes required will be of 17 ft. dia., capable of taking main-line suburban stock; otherwise the tubes will be of the normal 12 ft. dia. of existing London Transport tubes.

Line A—full size tube. Branches from West Hampstead (L.M.R.) with connection with Midland suburban line to be electrified, and from Finsbury Park, with connection with G.N. suburban lines to be electrified, converging at Euston, thence *via* Russell Square, Chancery Lane, Ludgate Circus, Elephant & Castle, to Loughborough Junction, there linking up with Southern electrified lines.

Line B—full size tube. Canning Town-Blackheath-Hither Green (for goods traffic only), mainly to handle the goods exchange traffic between north and south now passing over Blackfriars Bridge.

Line C—normal size tube. Tottenham, with connection from Walthamstow and interchange with Enfield Town, Bishops Stortford and Chingford lines, Manor House, Finsbury Park, Kings Cross, Euston, Oxford Circus, Green Park, Victoria, Vauxhall, Stockwell, Brixton, Croydon.

Line D—normal size tube. Copper Mills Junction, with connection with Chingford line, Hackney Downs (incorporating line from Enfield Town), Liverpool Street, Bank, Ludgate Circus, Aldwych, Trafalgar Square, Victoria (with tentative extension to High Street Kensington, Shepherds Bush, Acton, Ealing and Yeading Lane).

Line E—normal size tube. An "express" line duplicating the Northern Line between Kennington and South Wimbledon, there forking to Morden and North Cheam, and to Raynes Park and the Chessington branch.

Line F—full size tube. Hither Green, with connection with Southern electrified lines, New Cross, Fenchurch Street, Bank, Ludgate Circus, Aldwych, Trafalgar Square, Marble Arch, Marylebone, Neasden, with connection with Great Central line to be electrified to High Wycombe and Aylesbury.

Line G—full size tube. Fenchurch Street, Bank, Waterloo, Vauxhall and beyond. (The Tilbury and Southend line having been electrified as a matter of high priority would at this stage dip into the tube just east of Fenchurch Street. The Waterloo & City tube would presumably be absorbed or superseded. At a point beyond there would be eventual connection with the Southern electrified lines.)

Line H—normal size tube. Elephant & Castle-Camberwell (extension of the Bakerloo Line already authorised, with possible further extension).

Lines J & K—normal size tube. Moorgate (connection with Northern or Northern City lines), Mansion House, London Bridge; route J thence to Greenwich and Plumstead, or alternatively route K to Peckham and towards Lordship Lane.

Line L—normal size tube. Aldwych-Waterloo (extension of Piccadilly branch line).

Line M—surface electrification of Bishops Stortford-Liverpool Street line.

Within the framework of the plan it is thus proposed that all remaining radial steam-operated suburban lines, except apparently the main line of the Western Region, be electrified as far out probably as High Wycombe, Tring, Luton, Hitchin, Bishops Stortford and Shoeburyness, allowing the establishment of diametrical outer-suburban services worked by full-size stock and crossing central London in large tubes, except that from Bishops Stortford.

High priority is given to works necessary for the operation of 10-car trains or the provision of double-deck trains, on the Southern Region suburban lines, and to those parts of the 1935-40 programme still outstanding, except the Fenchurch Street-Stratford electrification.

We shall describe the plan more fully in subsequent issues, but on first examination there are a few points which seem to call for immediate comment. We regard it as a courageous attempt to assess the railway needs of London for a foreseeable period, and it is the first in which London is treated as a single transport entity, distinct from town planning schemes. Some of the routes were mooted as far back as the "tube mania" period of 1901-2, notably those beneath the Strand and Fleet Street, even then recognised as a better traffic route than the District Railway below the Embankment, but competing interests killed the schemes. The tube to Croydon is a reminder of the ambitious City & Surrey Electric project of that era.

One of the most interesting features is the two parallel tubes, one of large, the other of small diameter, from the Bank to Trafalgar Square, *via* Fleet Street and the Strand. Victoria, which has long suffered from inadequate underground facilities, will be served by two lines linking it with the principal business areas, but they will be "small" tubes. We think that an opportunity has been missed here, by not projecting the Southern suburban trains in a full-size tunnel from Victoria to Kings Cross. If the line had stations at Piccadilly and Holborn it would serve a heavy traffic. Also, the alignment of Line F seems somewhat peripheral in relation to the West End.

In one way the wheel turns full circle, for some of the old cross-London services of Victorian days, such as that between the G.N., Midland, S.E., and L.C.D. railways will come back, though in much-improved guise. The link between Fenchurch Street and the Southern Region is excellent and we also commend the connection which will enable trains to run off the Great Central on to the London Midland at Kenton. It will be of great value in catering for the much-increased L.M.R. outer-suburban traffic envisaged.

Though many of the works are essentially long term, we suggest that one, the self-contained little extension from Aldwych to Waterloo, could be put in hand at once to provide a much-needed rail link between Waterloo and the Fleet Street-Law Courts area.

The total cost is put at £340,000,000 and the route mileage in tube is 103. There are those who may argue that some of the proposed lines should have been built many years ago. They overlook the fact that the first world war came before the original tube railways had begun to show a real return on their cost of construction and that in the inter-war period prices of materials had risen so much that only by Government grants were the various tube extensions of the 1920s and 1930s financed. It cannot be overlooked that the estimate of cost, like others in the past, may prove too low. Moreover, nowhere in the report is there any indication of the return which may be expected on the expenditure.

Furthermore, not until the formation of the London Passenger Transport Board in 1933 was it possible to treat the London problem as a whole, and after that the second world war intervened to delay a new works programme which is for that reason still far from completion. As the Minister of Transport said in the House of Commons on the eve of the publication of the report, the work recommended would take 20-30 years to complete. The Government had to give full consideration to the report and to the major policy issues affecting the plan of London before any decision could be reached. This would take some time and a statement of the Government's intentions would be made in due course.

The Railway Wage Impasse

At almost the last moment the National Union of Railwaymen called off the operation of "working to rule" which was to have started at midnight on Sunday last. Mr. J. B. Figgins, General Secretary of the N.U.R., has welcomed the decision of Mr. Isaacs, the Minister of Labour, announced last Friday, to intervene in the dispute between the union and the Railway Executive on the claim of the former for a 10s. a week wage increase. A summary of the steps in the dispute is given elsewhere in this issue, but there are certain broader aspects of the matter which merit attention.

In this wage claim, the National Union of Railwaymen has made it clear that the only settlement which will satisfy it is a complete surrender to its own terms. This is the negation of negotiation, and has had its reaction on the two other railway trade unions, the Associated Society of Locomotive Engineers & Firemen, and the Railway Clerks' Association, which, throughout, have behaved with a dignity and statesman-like regard for the facts of the situation, the public weal, and the safeguarding of the established machinery of negotiation in sharp contrast to the N.U.R. The President of the Railway Clerks' Association, in the current issue of its organ, *The Railway Service Journal*, has been moved to write: "The present crisis in the railway industry is deplorable and I am glad the R.C.A. is in no way responsible for it. . . . Collective bargaining and mutual respect cannot possibly be attained unless both sides are able to trust each other. . . . Although progress may still be a little slower it is better to work hard and persistently on honourable lines than to threaten and bully employers and public. . . . It will be a bad day for the Association if we so mishandle our affairs that we have to appeal to the Prime Minister to bring order out of chaos."

The Economist, too, has had some comment to make on the conduct of the negotiations. Referring to the decision to work to rule, it says that this was purely a move in the game, and was another mark "of the intemperate ambition of the union's Secretary, Mr. J. B. Figgins—a man who is on the way to becoming the best-hated figure in Britain both among the union movement, whose standard of conduct he is betraying, and among the general public."

There can be no doubt that much of the trouble on the present occasion has been caused by the intemperate incitement of the members of the N.U.R. to expect, and to press for, higher wages irrespective of the present financial position of the railways, or of their own claims in comparison with those of other workers. Having been led so far, it need occasion no surprise that there was some resentment among the men when it was decided to postpone working to rule. In recent years one has become familiar with the tactic of leading masses of people towards a disputed objective and then, when the leader has force to call a halt, and to show some sign of reasonableness, to have the disappointment of his followers put forward as an expression of public opinion.

It seems that one of the reasons which may have influenced the N.U.R. in abandoning working to rule was a late appreciation that to ban overtime would cut out Sunday work and lead to general stoppages on the railways every Sunday. Failure to work on Sundays would be a breach of Defence Regulation 1305, which lays down that strikes and lock-outs are illegal, unless the Minister of Labour is advised of the existence of the dispute and 21 days' notice is given of the intention to cease work. If, within the 21 days, the Minister refers the dispute to arbitration, the strike is illegal. Mr. Figgins has denied that the legality of the work-to-rule decision was in question. There seems no doubt, however, that a position is being reached on which firm action by the Government is required to combat the tendency to hold industry and the public to ransom. The N.U.R. and the dockers present a problem which must be solved.

No responsible person can find satisfaction in the fact that the Government has been forced to intervene in a dispute in a nationalised industry. Mr. Figgins has made it plain that in his view the N.U.R. has gained its point by forcing the Government's hand and that its intervention must lead to a substantial improvement in railwaymen's wages. A precedent has been established which other industries may not be slow to follow. Is the principle now to be accepted that if a trade union can remain obstinate enough through the long processes of conciliation, the Minister will come in at the end with some

machinery of his own? That is what it looks like. If it is so, then the ordinary processes of negotiation become so much waste of time.

The suspension of the immediate threat to work to rule is really no more than a truce in the present railway trouble. If the Government intervention does not secure for the union something nearer its ambitions than the offer of the Railway Executive, presumably the trouble will start all over again. On the other hand, if a better offer is made, as a result of the Minister's intervention, surely other unions will agitate until the Government comes to their aid.

Mr. Figgins' own ideas have been made plain. He does not believe that railway wages cannot be raised because the railways are losing money. He relies on the fact that the Transport Act can be interpreted as saying that losses in one year can be carried forward and balanced against future profits, and he claims that the Railway Executive has accepted the principle of increasing wages by adding to the present deficit, by reason of the offers it has made.

Over last weekend Mr. Alfred Barnes, the Minister of Transport, mentioned the financial results of the railways. Already estimates of the deficits of last year range between £20 and £30 million, and Mr. Barnes said that this year's experience was worse than that of last. The estimate of the cost of satisfying the N.U.R. claim is approximately £26,000,000 in a year.

British Railways Costs

Since we wrote the article on this subject which appeared in our July 1 issue, further letters from Mr. Gilbert Walker and Mr. Ernest Davies, M.P., have appeared in *The Times*. Both of these correspondents raised matters which had little or no bearing on Mr. G. J. Ponsonby's proposition that "each form of transport should cover its full social and economic costs, including interest upon capital." On July 2 a letter from Sir Eric Gore Browne, former Chairman of the Southern Railway, brought the discussion back to the point. Speaking from practical experience, he expressed in vigorous language views which support the line taken in our article. As the last portion of his letter seems to be conclusive, we quote it in full below:—

"In ordinary commercial practice the profit is stated after deducting interest on any borrowings used to finance the fixed assets and is thus a hybrid figure representing interest on the equity capital in addition to the real profit; but sufficient information is given in published accounts to show whether the undertaking is really paying its way. In the case of nationalised undertakings there is no equity capital, and we are able to start with a figure which must be deemed to be the social and economic value of the railways. In fact, it is a considerable understatement of the replacement cost of the assets and probably approximates to the original cost of the assets in service (after deducting obsolete and unremunerative assets), the value being based essentially on competitive earning-power in the three pre-war years used as the basis for the rental under the control agreement. Surely, before the railways can be said to be paying their way, the profit must clearly cover the interest on the whole of this capital investment, i.e., on the £1,000m. Transport Stock issued to the former proprietors. It is a mystery to me how any person with any commercial sense can assume that the results of an enterprise can be fairly ascertained without due regard being paid to the earning of a reasonable and normal rate of interest on the amount of capital put up by the proprietors."

It is strange that, four days after *The Times* opened its columns to this correspondence, Dr. J. H. Parmelee, Vice-President, Association of American Railroads, told a Senate Committee on Air Transport in Washington that sound economic conditions called for each transport industry to be at least self-supporting. "It is a well-recognised principle," he said, "that, only through the test of the financial ability of each type of carrier to stand on its own feet and meet its own costs, can the respective fields of maximum economic usefulness and efficient public service of the various types be accurately determined."

Again on June 14 Dr. Parmelee argued before a House of Representatives Committee on Merchant Marine that the Panama Canal authorities were correct in including on the expenditure side of their annual accounts an item of about

\$15 million representing interest at 3 per cent. on the net investment in the canal. This practice conformed to the principles approved by the Interstate Commerce Commission and State boards regulating public utilities, as well as to the procedure adopted by large business corporations in the United States. To eliminate interest would shift a direct cost from the users of the canal to the taxpayers, who found the money for its construction and are entitled to a reasonable return on their investment. If commercial users of the canal are not charged a fair share of operating costs, including interest on capital, shipowners will be subsidised and more than half the subsidy will go to foreign shipping—at the expense of American taxpayers.

The case of the Panama Canal offers a close analogy to the position of British Railways. During the past ten years, canal operating costs have increased by 90 per cent., whereas the canal toll has stood at 90 cents a ton. There is consequently a deficit of about \$8 million a year, but the President can revise the toll by proclamation to the figure needed to meet current costs. Unfortunately, there is no such easy method of curing the British Railways deficit, but subsidies, either from the Treasury or from road transport receipts, should be avoided. Invariably, subsidised transport of any type is dear transport in the long run, and subsidies of any kind are apt to give rise to serious abuses.

Goods Transport by Road

THE decision to separate the road passenger activities from road haulage, and to set up a new Executive under the British Transport Commission, to be known as the Road Passenger Executive, has already been recorded in our columns. The statutory instrument signed by the Minister of Transport on June 18 and entitled the British Transport Commission (Executives) (No. 2) Order, 1949 (H.M. Stationery Office, Price 1d.), shows that the Minister had already decided on an Order which was to come into operation on June 20, providing for the name of the Road Transport Executive to be changed to Road Goods Transport Executive, and for the establishment of an additional executive to be known as the Road Passenger Transport Executive. The decision to change those names to Road Haulage Executive and Road Passenger Executive was made subsequently.

On June 30, Major-General G. N. Russell explained some of the steps which had been taken by the newly-named Road Haulage Executive since it was first constituted as the Road Transport Executive. By the end of May, 705 undertakings had been acquired either voluntarily or compulsorily. Over 21,500 motor vehicles and trailers have passed to the Executive, and it has also taken over 2,460 horse vehicles and 1,300 horses. The discrepancy between the number of horses and vehicles arises from the fact that in many cases vehicles have become redundant and the horses not replaced to maintain the fleets at full strength.

A certain amount of integration has been achieved within the industry, as is shown by the fact that the Executive has merged 96 small units with larger undertakings, and it is expected that this process will be accelerated. The organisation of the Executive throughout the country is coming to fruition, and 29 District Managers and 70 Group Managers have been appointed.

The Executive is now embarking on an advertising campaign to bring British Road Services before the attention of the public in an endeavour to secure traffic and to stress also the advantages of making use of these services rather than engage in the running of vehicles by traders under "C" licences. The Road Haulage Executive's services are particularly susceptible to competition by "C" licence vehicles, and an endeavour is to be made to convince traders that British Road Services can handle traffic just as efficiently, and more economically from the viewpoint of the consignor, than would be the case if he operated his own fleet.

This educational process may prove one of the most difficult of the tasks undertaken by the Executive, and obviously the rates it charges will have a major bearing on its success. In this connection it has been found, in some cases, that where a small undertaking has been acquired, it has been operating at low rates in recent months. The Executive has found it necessary to adjust those rates to its general national level,

and this has given rise to individual suggestions of rate raising by British Road Services. So far as road haulage rates are concerned in general it seems clear that the operating costs of "C" licence vehicles are still a major factor.

General Russell freely admitted that the numbers of administrative staff retained by the Executive was very high, but he said that this was due to the fact that, in effect, the Executive at the present time was engaged in a good deal of what was practically civil service work. Moreover, the amount of book-keeping in the road haulage business was large—there was no cash business as there was with railway passenger traffic.

British Transport Commission Traffic Receipts

FOR the first time this year the receipts of the British Transport Commission during the four weeks to June 19 were higher than in the corresponding period twelve months earlier; at £30,617,000 there was an increase of £851,000, but the total decline this year is still £3,628,000.

Traffic receipts by British Railways were influenced by the unequal incidence of Whitsun in this and last year. This year Whit-Monday was June 6, whereas a year ago it fell on May 17. The receipts in the latest period therefore included the whole of the holiday, whereas a year ago they covered only Whit-Monday. On the other hand, this year the period covered three Sundays, on which railway working was affected by the token strikes in the North Eastern Region. Passenger receipts showed an increase of £125,000 at £9,816,000, and this was probably a reflection of the Whitsun holiday traffic. Merchandise and livestock receipts at £6,308,000 showed an improvement of £98,000, and parcels traffic was £19,000 better at £2,304,000. Mineral traffics advanced £96,000 to £2,228,000 and coal and coke receipts were up £477,000 to £5,297,000. In aggregate, therefore, British Railways gross revenues rose £815,000 to £25,953,000.

London Transport receipts increased by £12,000 to £4,512,000. There was a decline of £16,000 in revenues from trams and trolley buses, but buses and coaches brought in £24,000 more at £2,534,000, and railways £4,000 more at £1,111,000. Inland Waterways also improved their receipts by £24,000 to £152,000. Details of the traffic takings for the four weeks to June 9, and also the aggregates for the twenty-four weeks to the same date, compared with the similar periods of last year, are given below.

	Four weeks to June 19		Incr. or decr.	Aggregate to June 19		Incr. or decr.		
	1949	1948		1949	1948			
	£000	£000		£000	£000			
British Railways—								
Passengers	9,816	9,691	+ 125	46,891	51,827	- 4,936		
Parcels, etc., by passenger train	2,304	2,285	+ 19	12,946	13,162	- 216		
Merchandise & livestock	6,308	6,210	+ 98	39,147	40,018	- 871		
Minerals	2,228	2,132	+ 96	13,882	13,203	+ 679		
Coal & coke	5,297	4,820	+ 477	31,891	30,021	+ 1,870		
	25,953	25,138	+ 815	144,757	148,231	- 3,474		
London Transport								
Railways	1,111	1,107	+ 4	6,720	6,766	- 46		
Buses & coaches	2,534	2,510	+ 24	14,349	14,432	- 83		
Trams & trolleybuses	867	883	- 16	5,059	5,193	- 134		
	4,512	4,500	+ 12	26,128	26,391	- 263		
Inland Waterways—								
Tolls	56	58	- 2	351	345	+ 6		
Freight charges, etc.	96	70	+ 26	568	465	+ 103		
	152	128	+ 24	919	810	+ 109		
Total	30,617	29,766	+ 851	171,804	175,432	- 3,628		

Over the twenty-four weeks of the year to June 19 railway revenue has declined by £3,474,000 to £144,757,000. Passenger revenue has fallen by £4,936,000, and there have been smaller decreases in both merchandise and parcels revenues. On the other hand, coal and coke receipts are higher by £1,870,000, and minerals are up by £679,000. The traffic receipts do not give a clear indication of the net revenue position of the railways, for it is known that costs, both of labour and materials, have increased against the railways since 1948.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

The Last "Precursor"

9, Berriedale Avenue,
Hove, 3, Sussex. June 27

SIR.—Before it is too late, may I make a strong appeal for the preservation of the last surviving passenger tender engine of the L.N.W.R. No. 25297 *Sirocco*?

While I am aware that the "Precursors" may have been "simply enlarged and elongated versions of older and quite ordinary types"—to quote a remark in a contemporary some years back—I would submit that they were the pioneers of the "large locomotive" era on the L.N.W.R., and as such are worthy of a place in any national museum that may be formed at some future date. Leaving aside the matter of purely technical interest, which is, surely, not the only viewpoint, I feel that these locomotives were—artistically—probably the most handsome machines Crewe ever produced and their record of services and performance over a period of 45 years were certainly in keeping with their appearance. They were essentially a famous class—like the "Gladstones" and G.N. Atlantics—specimens of which, happily, have been preserved for us—and, like these two classes, must have many thousands of devotees and admirers all over the world. Lastly, and by no means least, as the last surviving express locomotive of our one-time "Premier Line" and our oldest trunk line, I feel *Sirocco* has a very strong—perhaps the strongest—claim for preservation.

Yours faithfully,
J. P. BARDSLEY

Passenger Fares

13, Outwood Drive,
Heald Green,
Cheshire. June 13

SIR.—"Curious," like Mr. E. R. B. Roberts, is not altogether correct in some of what he wrote about passenger fares in your June 3 issue. My collection of railway excursion bills, dating back to 1924, which ran to many thousands, is, unfortunately, owing to the war, no longer so complete, but from it appear the following facts—though other readers may possibly have still earlier information.

Already, in 1924, period and week-end tickets were issued on a large scale at 1d. a mile, and also special day tickets, e.g., Manchester to London, 15s. 6d. return (now 37s. 6d.). In 1926, early closing (radius 60 miles), football (80 miles), any train any day, and many other cheap day tickets at 4d. a mile, were in full force on a big scale. Special half-day excursions at up to three miles a penny started in 1925, and special evening excursions at still cheaper rates commenced in October, 1932. It is of interest that, over 20 years ago, any train any day tickets were issued between Manchester and Buxton via Chilley. Withdrawn in the war, they have only just been wholly restored, at least three years late.

Yours faithfully,
ERIC DYCKHOFF

Railway Fares

London, W.C.I. June 25

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—Mr. Roberts's letter of June 6, appearing in your issue of June 24, calls for a reply, if only in the interests of accuracy. He states his previous letter distinctly said that the *single* fare "was reduced to 1d. a mile (2d. return)," but as reproduced in your issue of May 6 the wording was exactly as quoted in my letter of May 7, namely "they actually reduced it to 1d. a mile"—you will notice no mention being made of either *single* or *return*. If, however, Mr. Roberts intended to say that the *single* fare was reduced to 1d. a mile, I can assure him he was in error, as with the exception of a very few "experimental" fares for short journeys to counter this competition, no reduction has been made since 1928 in *ordinary single* (or for that matter *ordinary return*) fares, the only "reductions" made being by way of introduction of "exceptional" *return* fares such as monthly return, cheap day, etc., as mentioned in my letter of May 7.

It was pretty obvious that Mr. Roberts intended to convey that the *return* fares were reduced to "4d. a mile each way" although he certainly did not say so, but here again his statement was incorrect. The only *return* fares reduced to that level were "cheap day," which applied only to comparatively short distances between specified points, and frequently with certain

restrictions. Monthly return fares were never reduced below 1d. per mile each way; neither were ordinary *return* fares reduced below 1½d. per mile each way.

Is Mr. Roberts's comparison between French rail return charges (presumably arrived at by converting the charge in francs to sterling at the official rate of exchange) and British rail and road return charges a fair one? Would not the lowness of the former be accounted for, partially at least, by the very heavy depreciation in the value of the franc in relation to sterling since the war? I suggest more useful comparisons would be between French rail and French road, and between French pre-war and present-day fares, expressed in francs.

I prefer not to comment on the somewhat controversial matters of policy dilated on by Mr. Roberts, leaving that to others more competent to do so, but trust he is now satisfied that some of the facts and figures in his letter of February 7 were not only "a bit mixed," but completely inaccurate.

Yours faithfully,
CURIOUS

Locomotive Cylinder Design

"Carl Side," Portinscale,
Keswick, Cumberland. June 23

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—In your issue of June 17 I see a letter from Mr. William M. Sheehan, Vice-President of General Steel Castings Corporation, U.S.A., criticising some remarks made in a recent article of mine on the subject of locomotive cylinder design, and published in your issue of April 29, 1949.

May I assure Mr. Sheehan that my remarks were not intended in any way to disparage the use of cast steel for locomotive cylinders, as provided these can be produced in steel as sound castings at a price more competitive than that paid today in Britain, the advantages are unquestionably with steel?

I would suggest, however, that Mr. Sheehan's criticism is scarcely relevant when applied to the paragraph in question, as he complicates the issue by introducing locomotive bedplates, of which cylinders are but part. Even the two thousand sets of cylinders referred to by him, I assume, have saddles combined. In both cases the desirability of using steel is more obvious than for "straight" cylinders.

Yours faithfully,
GEORGE W. MCARD

Railway Standards

33, Upper Belgrave Road,
Clifton, Bristol, 8. June 12

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—There are two letters in your issue of June 10 which call for special commendation, as they touch on matters of great concern to all who still have regard—may I say affection?—for our railways, and who, therefore, deplore any lowering of standards, a tendency which is all too prevalent today.

First, may I thank "Overseas" for once again raising the subject of filthy locomotives? As he says, "why paint at all" if little or no attempt is made to keep engines—and rolling stock, for that matter—reasonably clean? I know, of course, that excuses can be found—shortage of staff, poor quality coal, etc., but is it to be all excuses and no improvements? Might it be that the "couldn't care less" attitude is spreading its influence into railway administration as it is in other directions?

The second letter, from Mr. Arthur G. Wells, did my heart good, as it so gloriously expressed all that I had felt myself about the "Tavern Cars"! One does not often hear comments from the ladies on railway matters, but my wife's first remark, on being shown the photographs of these new cars, was: "but there are no windows! Fancy having dinner at the train and not being able to look out of the window at the countryside going by!" She also noticed that the first class dinner appeared to be much inferior to the third class.

When one of the new Pullman car sets for the Southern Region was put on last year, a good deal of publicity was given to the "Trianon" cocktail bar in one coach. And now we have these "Tavern Cars"! Why all this fuss and bother about alcoholic refreshments in trains? Surely, if there is a restaurant or buffet car in the train, and one can get a drink with a meal if required, that should be sufficient, without trying to make part of the train into a sort of "travelling roadhouse"?

These extravagant "trimmings" cannot disguise the fact that British Railways are in a rather poor way at present. They are not attracting the travelling public, though this is no doubt largely due to the heavy increase in fares compared with pre-war; but I think that more people could be persuaded to travel by rail if the Railway Executive would concentrate attention on cleaner locomotives and rolling stock, improved restaurant car services of the more orthodox type (such as one found in

the "Cornish Riviera," "Flying Scotsman," "Eastern Belle," and other famous trains in happier times), better timekeeping, and, most important, much-needed renovation of stations.

Also, what about a serious attempt to improve and popularise branch-line services, so that much of the overcrowding of country motorbuses might be relieved? I realise, of course, that this would require a considerable lessening of the present disparity between rail and bus fares, but this is a problem which must be faced up to, as must the equally serious problems of rates of pay, hours of duty, and the efficiency generally of railway workers.

Lest my last sentence should rouse the wrath of railwaymen, may I conclude by expressing my sincere appreciation of the helpfulness I have received this week from the staff of the Divisional Superintendent, Western Region, Bristol, in answer to some inquiries I made regarding a forthcoming journey? I was visited personally at home, details were talked over, and every assistance offered me. No one could wish for better service than that.

Yours faithfully,
RALPH L. WILKINS

"Tavern Cars"

June 19

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Since the first appearance of the "Tavern Cars," letters which have been published in the general press and your contemporary transport journals have made it quite clear that they are viewed with disfavour. By far the greater part of the criticism has been levelled at the actual livery and interior furnishing of the Taverns; "Beachcomber" has suggested thatched roofs, and doubtless Emmett will delight us with a cartoon in *Punch*, but surely there are more important considerations than those dealing with aesthetics.

We have been told repeatedly that shortage of labour and raw materials are handicapping the efforts of British Railways to provide better train services. At a time when so much of the coaching stock is sorely in need of replacement, it seems to be the height of folly to embark on this experiment in luxury.

The pressing claims of railwaymen for pay increases, coupled with the continuing high capital and maintenance costs, preclude the possibility of any substantial reduction in fares. Every effort should be focused, therefore, on wooing back passengers by providing absolutely first-rate services, fast, clean, comfortable, and reliable without any fancy trimmings. I refer, of course, to local as well as long-distance services.

Yours faithfully,
FARO

Mechanics of Wheel and Rail

Little Barn,
Radlett, Herts. June 25

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—With reference to the letters from Messrs. Cook and Herbert which you publish in your June 3 issue, perhaps some further remarks from me would be opportune.

The question which was uppermost in my mind was that of possible derailment and the importance of adequate safeguards. Let us consider the case of the motion of a vehicle or truck forming part of a vehicle having either cylindrical, conical, or hollow tyre profiles, with a flange root radius equal to, or greater than, the rail table corner radius. Lateral alternating inertia forces and couples are commonly applied to the truck through the agency of control springs, directly through horn cheeks or otherwise. Experiment shows that in cases where the lateral maximum load per axle approximates to or exceeds the static wheel load, there are three characteristic features which are usually observed:—

1. The periodicities of yawing and lateral oscillation of leading and trailing axles are equal.
2. The yawing oscillations of leading axles lead those of trailing axles by a small phase angle of roughly $\frac{1}{4}$ of a complete period.
3. In the periodic motion that is usually observed at speed on straight track and on flat curves, there exist in general two intervals in each period where the tyres of leading and trailing axles make simultaneous contact with the rail in the flange root radius and in no other place on the profile. Due to the comparatively large difference in effective radii of a wheel pair in these intervals, a considerable and somewhat sustained couple about a vertical axis is brought into existence, which causes the vehicle to pick up energy in yaw.

The effect of the profile modification proposed by Dr. Davies and Mr. Cook may be expected to reduce considerably the value of the sustained couple and, as Mr. Herbert suggests, to introduce forces and couples more in the nature of elastic impulses. In the intervals between impacts, the rail-tyre forces are likely to be governed by creep rather than by sliding.

When experimenting with high values of truck controls, I

have always been thankful for the existence of the flange root radius on guiding axles. Its effect is clearly brought out in oscillograph records, and I should be loath to see it discarded for tyres of guiding wheels which carry large lateral loads, since the tendency to climb must obviously be increased. The case is different for intermediate axles, and the modification should here result in the picking up of less energy in yaw.

From Mr. Herbert's remarks about the applications to coaching stock in the U.S.A., it would seem that improved riding is not to be expected when guiding wheel tyres are modified. The authors of the paper, however, may wish to experiment for themselves in this direction, and if the types of vehicle tested are among those mentioned in my previous letter, I see no objection from the standpoint of safety.

Yours faithfully,
W. E. GELSON

Ticket Availability

6, St. Oswald's Road,
Hexham, Northumberland. June 20

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I recently had to travel with my family from Newcastle to Templecombe and in my natural desire to avoid London, found a good connection via Gloucester and Bath. On the return journey there was no suitable train on this route so I planned to travel via London.

When buying tickets for this journey at Newcastle, as a precaution I asked if they were available for the alternative routes mentioned above. I was offered tickets to Bath, Bristol or even Exeter valid for alternative routes. In the end my plans had to be changed suddenly and inconveniently.

How much longer must we suffer this nonsense?

Yours faithfully,
J. M. BOYCOTT

Summer Train Services

23, Somertrees Avenue,
London, S.E.12. July 3

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—May I be allowed to comment briefly on Mr. Carpenter's interesting letter in your issue of July 1? I fully agree with him as to the poor service offered by the up "White Rose" at 5.15 p.m. from Leeds, but we must remember that there is an excellent service at 4.30 for those who like Pullmans and are willing to pay the supplement, and it should be recalled that the old Great Northern's 6.30 p.m. from Leeds of 1910 and 1911 (due in London at 10.5) was a very lightly loaded train, and that the corresponding Midland services at 6.27 and 7.18 p.m. depended mainly on Scottish traffic, and did not pick up many people at Leeds. A 5.30 or 5.45 p.m. departure from Leeds is probably late enough for business requirements.

Mr. Carpenter's general criticism of the up service seems to have overlooked the 10.40 a.m. "Yorkshire Pullman," which with the 7.50, 8.30, 9.50, 12.45, 4.30, and 5.15 departures is a reasonably good daily service. Rather too much attention was paid, in pre-war timetables, to the running of fast mid-day trains in the principal commercial services. The Midland route has rightly cancelled its noon expresses between St. Pancras and Manchester, and what is still missing, from Euston, St. Pancras, and Kings Cross, is a really fast early morning train to the provinces.

I am glad to see that Mr. Carpenter agrees with your criticism of the alteration of the 2.20 p.m. from Manchester to Marylebone. I have vivid memories of the wretched loading of the old Great Central 11.25 a.m. from Manchester (due in London at 3.33 originally), and of how well the 2.20 (then 2.15) used to load between Sheffield and Marylebone during and after the first world war. The disturbance of this service, just when the improvement of the 11.55 a.m. from Manchester to Euston provided, again, quite adequately for midday traffic, does not encourage one to hope for any useful re-arrangement of what were once "competitive" trains, and this feeling is intensified by the spectacle of the new 5.25 p.m. Leeds to Carlisle in the London Midland Region's timetable—a piece of new mileage which might have done so much, but has achieved very little.

Perhaps I might add, with reference to Mr. Maxwell Taylor's letter, in the same issue, on "Regional Timetables," that the transference of the Tilbury Section from the London Midland to the Eastern Region book had already been commented on—and rather caustically!—in your issue of May 20.

Yours faithfully,
R. E. CHARLEWOOD

The Scrap Heap

STATE TRAVEL

It would be interesting to know what benefits, beyond a coat of different coloured paint, the travelling public is supposed to derive from the nationalisation of the railways.

Some benefits which would reasonably have been expected have not materialised. For example, a ticket office in "region" A is no more able than before to issue a ticket to a station 20 miles off on the system of "region" B. They still remain in watertight compartments.

The luggage position is definitely worse. Whereas previously the presence of a "company's label" on one's luggage was virtually a guarantee of its safe arrival, the responsibility is now laid on the traveller to supervise his luggage into and out of the luggage vans at departure, arrival and every intervening junction.

One must admit the justice of the adverse criticism of our railways by visitors from the Continent, where it is the universal custom to register all but hand luggage. One's trunk is left at the departure office, where one pays about 4d. and is given a receipt. Then one forgets all about luggage until one's destination, when, no matter how many intervening changes there may have been, the receipt is handed in and there is the luggage.—*W. H. Spoor, in a letter in "The Daily Telegraph."*

A LADY AND HER HAT

I am not English and have been in England for two months only. Two days ago I was in the London Bridge underground station. I went out of the train and began to go upstairs. Suddenly a gush of wind blew away my hat, and I ran downstairs to the platform, but the hat went down between the rails. Then I too went down between the rails and, since the hat had stopped finally, I took it and climbed on the platform again. Nobody told me anything. Today a friend of mine told me that the rails are electrified and that I could die very easily. But why, if so, is there no advertisement near the rails?

Dance Band on a Reichsbahn Train



Sunday excursion trains from Hamburg to Westphalia include a refreshment car and a special coach with a dance band

I did not know that the rails were electrified. I simply took my hat. Since I am in a rather difficult situation at present, some people might have thought that I had committed suicide—instead I was following my hat only. This story is comical and strange, but it is a little dreadful also.—*Silvia Risolo in a letter to "The Times."*

GONE WITH THE WIND

An Irishman waiting for a train at Belize Park tube station had his hat blown from his head by wind raised by a train. It came to rest beside the live rail, so he did not try to retrieve it. Instead he claimed compensation from London Transport. London Transport disclaimed responsibility. "It is not possible," said their letter, "to control draughts which necessarily arise owing to trains running within restricted tunnel spaces."—*From the "Evening Standard."*

100 YEARS AGO

From THE RAILWAY TIMES, July 7, 1849

SOUTH EASTERN RAILWAY.—NOTICE is hereby given, that the READING, GUILDFORD, and REIGATE RAILWAY, from Reigate to Dorking and from Reading to Farnborough, is now OPENED for public traffic.

TRAIN LEAVE AS UNDER.									
Leave London	Leave Dorking	Leave Reading	Leave Farnham	Leave Reading					
	for Dorking	for London	for Farnham	for Reading					
7.30, a.m.	7.30, a.m.	7.45, a.m.	8.35, a.m.						
10.10, a.m.	8.49, a.m.	10.42, a.m.	11.41, a.m.						
1.30, p.m.	9.39,	3.0, p.m.	4.38, p.m.						
4.30, p.m.	12.23, p.m.	7.0, p.m.	8.30, p.m.						
5.30, p.m.	4.23, p.m.								
6.30, p.m.	9.40, p.m.								
7.30, p.m.									

	FARE			DAY TICKETS		
	1st	2nd	3rd	1st	2nd	3rd
From London	Exp	Clas	Clas	Exp	Clas	Clas
to	s. d. s. d. s. d. s. d. s. d. s. d.					
Red Hill Junction	5 04	4 12	2 39	6 72	6 9	6 9
Reigate	6 04	10 3	6 2	6 10 0	6 6	0
Betchworth or Dorking	6 65	6 4	6 2	9 10 0	6 6	0
Dorking	7 06	0 4	3 1	12 0 10 0 7	6	

Periodical tickets are granted at the following rates:—
From London to 12 mos. 6 mos. 3 mos. 2 mos. 1 mo.
Red Hill or Reigate £.39 £.20 £.15 £.12 £.8
Betchworth or Dorking £.35 £.25 £.17 10s. £.14 £.10
G. S. HEBERT, Secretary

London Terminus, June 30, 1849.

FRENCH RAILWAYS DEFEND THEIR RATES

There has been blame of the French railways because the decrease in the cost of production of some consumer goods and certain articles of food has not been reflected in the corresponding retail prices. To answer these criticisms the French National Railways recently published a leaflet showing the incidence of the cost of railway transport in the retail prices of certain basic food articles and consumer goods in its proper light.

It shows that a kg. (2.2 lb.) of beef conveyed by refrigerator wagon over 300 km. (186.3 miles) is charged fr. 4.05 only, yet a beefsteak is sold at fr. 435. The railway freight rate for a litre (just under two pints) of wine from Béziers to Paris, 493½ miles, is only fr. 3.20, if conveyed by tank wagon, as against fr. 70, the price at which a litre is sold retail; fr. 3.20 would cover only the price of a cork.

The conveyance of 1 kg. of oranges from Cerbère to Paris, 577 miles, costs fr. 5.70 as against a retail price of fr. 83. Railway transport in this case is less than the value of a single slice of an orange.

Today, for the price of a pair of shoes, a passenger may travel four times further than in 1938. For the price of six packets of "Gauloises" cigarettes, a traveller now may go from Paris to Amiens, 81.3 miles; in 1938, he would have been able to travel only to Melun, 28 miles.

In 1914, the third class fare was 5 centimes a km. That was the price of a box of matches, a daily newspaper, and the postal rate for a postcard. Now, a kilometre by railway costs fr. 3, a box of matches fr. 5, a daily paper fr. 8, and the postal rate for a postcard is fr. 8.

* * *

THE LURE OF THE LOCOMOTIVE

A correspondent who signs himself "Hugo Barmey" has written to us about locomotives. This is what he says:—

I'm clean nuts about engines. The mechanism, the valves and things and all the odds and bobs. It's just marvellous. It was a driver who first got me interested, by explaining how a locomotive turns corners, such as from a main line to a branch line.

The pony truck, he told me (which he sometimes referred to as the "donkey car"), worked on the swivel principle, being operated by a small steering wheel near the regulator. I'm told that the pony truck, though popular on the 0-6-0 type of locomotive, is not much in favour on the new 0-7-0 type, for drivers complain strongly of side pull.

Then there's all that rodding on the driving wheels. The way the connecting rods (or is it the driving rods?) push the pistons back and forth in the cylinders to force the steam up the chimney to make the chuffs is marvellous.

I used to know a locomotive firefighter. He lived next door. He was working his way up to be a driver, and his enthusiasm about engines was terrific. I learnt a lot from him. He was who explained to me that the fire has to keep the steam at boiling point, and that the hottest steam of all is kept in the dome—that big knob thing on top of the boiler midway.

He also told me that lots of chaps when on the footplate cook their meals over the fire, especially when working a double trip. They like to fry a bit of bacon and cheese on the shovel which, he said, lots of enginemen call the frying pan.

The tender I find is interesting, too, the way it has coal on top and water underneath. The purpose of the water I found out for myself, for I have often seen a

fireman using a hose and spraying water on to the tender to make the dirty coal cleaner. I expect keeping the coal clean prevents boiler tubes getting all furred up.

Talking about water, they tell me these water-softening plants are very useful when water gets hard as in freezing, for the plants quickly soften the water, rendering it pliable again.

The scoop on the tender I always think is rather ingenious. My driver friend told me that by pressing his scoop lever, the scoop is thus lowered, scooping up coal which has been spilled on the track from passing coal trains. The scooped coal then

rushes up the pipe and into the tender. Thinking of speed, I think it's a pity that all engines are not provided with speedometers. It's a bit thick to expect a driver at speed to have to count the telegraph poles, divide it by the number of mile posts passed per minute, multiplying the produce by 900, and taking away the engine number, which, they say, is laid down in official instructions. This, naturally, can only give the approximate speed. But now there is a special algebra course at the railway staff college for drivers, as a fireman told me, the margin of error will be much reduced.

FAST RUNNING WITH THE "TEES-TYNE PULLMAN"

The "Tees-Tyne Pullman" express, in a race against the clock, recently beat its scheduled time by one minute over every ten miles of its 230-mile non-stop run from Darlington to Kings Cross. The train, drawn by the streamline locomotive *Walter K. Whigham*, left Darlington 23 minutes late because of a derailment and arrived in London at 2.15, dead on time. It covered one 20-mile stretch between Darlington and York in 14 min. 58 sec.—just over 80 m.p.h.—From the "Sheffield Telegraph."



"BLIMEY—CLAY"!

[Reproduced by permission of the proprietors of "Punch"]

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Railway Purchases

An order for 20,000 tons of steel sleepers, to the value of £540,000, has been placed in France. Delivery is expected to begin this month and the whole order will be completed by the end of December.

A contract was recently placed with a local firm, Dorman Long (Africa) Limited, Johannesburg, for the manufacture of 4,000 wagons for the South African Railways. The order consists of 2,000 type DZ-7 drop-sided bogies, at £934 each, 1,500 B-22 high-sided bogies, at £939 each, and 500 FB-8 covered bogie wagons with timber bodies, at £1,220 each. These figures do not include the cost of supplying wheels and axles, automatic couplers, drawgear, and portion of the vacuum brake gear, the cost of which will add an average of £322 to the price of each.

A previous contract placed with the same firm in June, 1946, covered the supply of 4,500 wagons at a cost of £4,725,925. An average of 150 wagons is being completed monthly at the Dorman Long workshops at Germiston.

The orders for electric locomotives and motor coaches which were placed in the United Kingdom in 1943 and 1944, were completed during February this year. The first order was for 28 Class 3-E electric locomotives at a provisional price of £48,196 each, and the second, for 54 electric motor coaches, at £22,570 each. The electrical equipment for both orders was manufactured by the Metropolitan-Vickers Electric Export Company, and the mechanical work on the locomotives was completed by Robert Stephenson & Hawthorn Limited. The remainder of the work on the motor coaches was done by the Metropolitan-Cammell Carriage & Wagon Company, and the Birmingham Railway Carriage & Wagon Company.

Railways & Harbours Acts Amendment Bill

The Railways & Harbours Acts Amendment Bill, which has passed through its second reading in the Union House of Assembly, proposes to legislate on the outcome of a plebiscite held among railwaymen some time ago on the improvement of the commutation benefits paid to servants of the Administration on retirement.

Under the new scheme, present members of the Railway Superannuation Fund will have the option of receiving on eventual retirement either the full annuity due, or three-quarters of the annuity, plus a gratuity or commutation cash payment in respect of the remaining one-fourth. This option is to be exercised within six months of the passing of the Act, or longer where there are exceptional circumstances.

New members to the fund will not be allowed to exercise this option, but on retirement will be paid an annuity of three-quarters of the full annuity due, plus the commutation cash payment in respect of the remaining one-fourth. Members due to retire within five years from the date of promulgation of the Act, if they so desire, and if they have undertaken other financial commitments in anticipation of their retirement, will be allowed to commute one-third of their annuity under the conditions applicable to the present scheme.

The new commutation factors will provide considerable relief to members who may be prematurely retired on grounds of ill-health or physical disability, as they will now be assured of receiving £10.32 for each £1 of annuity commuted, and the amount will no longer be reduced or "loaded" according to the estimated expectation of life. The commutation procedure in the railway service will now correspond with that applicable in the public service.

The Bill also provides for changes in the conditions of service for check pilots, commanders, first officers, and navigation officers in the airways department. They will now retire at the age of fifty instead of at the age of sixty as in the past. Annuities will also be calculated at the rate of one-fiftieth for each year of membership of the Superannuation Fund, and their contributions will be increased accordingly.

RHODESIA

1948 Results

Approximate revenue and expenditure figures for all sections of the Rhodesia Railways (including the Beira and Shabani Railways) for the first year of Government ownership (the twelve months ended March 31, 1949) are as follows:

Receipts totalled £10,188,544, an increase of £1,413,902 (roughly 16.1 per cent.); expenses totalled £7,590,182, which was £814,644 (approximately 12 per cent.) more than in the previous financial year.

The revenue figures for coaching, general goods, coal and coke and minerals all reflected increases, but livestock and sundry traffic revenue decreased. On the expenses side there were decreases in respect of hire of engines and rolling stock and in provision for depreciation and renewals.

Traffic Summary

On the sections north of Bulawayo for the twelve months (figures in brackets represent increases compared with the previous year) passengers carried totalled 2,307,177 (131,900); coal and coke 1,706,105 tons (213,416); minerals 1,065,073 tons (138,387); general goods 1,953,888 tons (199,745); total 4,725,066 tons (551,548). Operating statistics for the twelve months for the sections north of Bulawayo include train miles 6,818,559 (incr. 746,005); gross ton miles 4,377,433,000 (incr. 451,718,000); net ton miles 2,000,254,000 (incr. 248,000,000); percentage of net ton miles to gross ton miles 45.69 (incr. 1.05).

CEYLON

Revised Fares

Revised passenger fares came into force on June 1, 1949. The new fares per passenger per mile are as under:—

	First class	Second class	Third class
Rambukkana—Badulla ...	16 cents	10 cents	4 cents
All other lines ...	11 cents	7 cents	3 cents

Minimum fares per passenger and platform tickets are also increased from 5 to 10 cents.

But for certain adjustments in the up-country fares beyond Rambukkana, first and second class fares which were increased by 50 per cent. over pre-war fares with effect from February 1, 1948, will remain unaltered. Season tickets of all classes including monthly suburban tickets

will not be affected and will continue to be issued at existing fares.

The third class ordinary fare which is now 2½ cents per mile and which was not increased with the revision of fares in February, 1948, is raised by one-third of a cent between all stations below Rambukkana. On the section above Rambukkana which has only 39 stations out of a total of 220, the increase will be by 1½ cents per mile.

Third class fares were not increased by as much as 50 per cent. Even now, the increase will be only about 29 per cent. over pre-war between all stations in the low country, which comprises the whole of the Coast and Puttalam lines, main line up to Rambukkana, Northern, Batticaloa-Trincomalee, Talaimannar, and Kelani Valley lines. On existing third class fares, the increase over all the above lines will be about 14 per cent. only. Third class train fares are still below road passenger fares and the railway continues to be cheapest form of transport.

Locomotive Water Treatment

As continuous boiler troubles were being experienced with locomotives on the Northern and Eastern sections, samples of water used for locomotive purposes were tested by Imperial Chemical Industries (India) Limited, on whose recommendation sixteen watering points are being installed with wayside treatment of the Alfloc deferred system using Alfloc 58 briquettes.

All locomotives working in these sections are also being fitted with automatic blow-down valves. At Maho only is water-softening plant of the lime soda continuous type being adopted.

UNITED STATES

North Shore Service Abandonment

The Chicago, North Shore & Milwaukee, which is understood to be losing \$700,000 annually on its passenger traffic, has been authorised to suspend 54 trains serving suburbs north of Chicago and save an estimated \$40,000 annually. In December last the railway sought permission to abandon operations on its Shore Line branch.

ARGENTINA

New Station at Mar del Plata

It has been decided to erect a new station at the seaside resort of Mar del Plata, and the necessary studies are under way. It is proposed to utilise the station buildings at Mar del Plata South as a hostel for railway employees and to install an additional platform at Mar del Plata North until the new station can be brought into use.

Puerto Santa Cruz-Rio Turbio Railway

The Government has recently placed an order for 120 "Sentinel" steam road locomotives to be used for the transport of coal from the Rio Turbio mines to the port of Santa Cruz, and it is understood that a further order will be placed shortly. Although no official announcement has been made, this would seem to indicate that the railway between these places, which was to be built at a cost of 268,944,036 pesos (see our issue of November 5, 1948), will not now materialise.

Under the special circumstances, the use of these 120-h.p. 12-ton road locomotives, would seem to be more economical than the cost of building a railway. The purchase price of the 120 lorries is

quoted at £400,000, and although it is not stated what sums will have to be spent on road improvement and maintenance, there is a great difference between the relative costs of installation of the two systems. The use of petrol or oil-driven lorries presents considerable difficulties in connection with the transport of the fuel they require. It is hoped to transport some 35,000 tons of coal monthly.

Diesels for General Belgrano Railway

The Whitcomb Locomotive Company, which received an order for 75 light metre-gauge diesel-electric locomotives from the General Belgrano Railway, expects to deliver the first six in Buenos Aires in July. The locomotives, built to a standard design, are equally suitable for hauling suburban, main-line passenger, and goods trains. They are single 0-6-0 units weighing 64 tons and are powered by diesel Superior motors coupled to Westinghouse generators and motors. The balance of the order will be completed at the rate of seven locomotives per month.

Transport of Passengers' Luggage

The Ministry of Transport has issued an extensive new set of regulations governing the transport of passengers' luggage. Each passenger is allowed 30 kg. free; this luggage may be taken into the coach by the passenger provided the sum total of the length, width, and depth of the packages does not exceed 160 cm. Small packets may also be taken into coaches and not included in the 30 kg. allowance provided the sum total of their measurements does not exceed 105 cm. Any luggage outside this allowance will be transferred to the luggage van and charged for.

Diesel Expresses to Bahia Blanca

In our issue of June 17, we referred to the new weekly non-stop diesel express between Buenos Aires and Bahia Blanca, which figures in the new winter timetable

of the General Roca Railway. The Minister of Transport and high railway officials travelled on the train on its first trip, which was accomplished in 6 hr. 7 min., an overall speed of 105 km.h.

The stock used for this service is the Ganz-diesel three-unit train previously running on the Patagones-Bariloche line. It has been completely overhauled, re-decorated and named "El Huemul."

SWITZERLAND

Rhaetian Railway in 1948

The working surplus of the Rhaetian Railway for 1948 amounted to fr. 1,746,111, or more than 50 per cent. less than in 1947 (fr. 3,804,382), and the profit and loss account closed with an unfavourable balance of fr. 117,500 as against a credit balance of fr. 12,828 twelve months ago.

ITALY

Increase in Fares and Rates

After final adjustments by the inter-ministerial committee for price fixing the average increase in fares has been set at 18 per cent. (with minor exceptions for favouring long-distance fares) which will be differently applied according to classes. First-class fares are to be increased by 10 per cent., second-class fares by 40 per cent. and third-class fares by 16 per cent. This will enable the pre-war ratios between the fares (2.55, 1.70, and 1) to be re-established. Workmen's weekly season tickets will be increased from January 1, 1950, by 10 per cent. only, contrary to the proposal submitted by the Ministry of Transport which envisaged an increase of 18 per cent. as from October 3, 1949.

The age limit for schoolchildren's season tickets is to be raised from 14 to 16 years, but the rates will be lowered by 10 per cent.

The average increase in goods rates is to

be 16.3 per cent. with a reduction to 15 per cent. for the higher classes and to between 7 and 10 per cent. for certain special rates. Thus, the rate for pyrites will be increased by 10 per cent., and for brown coal by 7½ per cent.

HOLLAND

Station Reconstruction at Tilburg

Tilburg Station is being reconstructed and modernised in preparation for electric traction. The platform height is being raised and two intermediate tracks are sacrificed so that the island platform can be widened to 11 metres. A pedestrian subway of 5 metres width is being constructed, and the main station entrance is being moved from the east to the west side of the line. A site at present occupied by a locomotive shed will be used eventually for the purposes of a bus station.

NORWAY

Strike on Narvik Line

Services on the Narvik-Vassijaure (Sweden) section (28½ route-miles) of the Lapland railway have been discontinued since June 3 because of strike action by train crews.

U.S.S.R.

High-Speed Diesel Train in Lithuania

After exhaustive test runs, begun on June 12 on the main line between Vilnius (formerly Wilno), Kaunas, Shauliai, and Klaipeda, the main port of Lithuania, a new high-speed diesel train was placed in regular service between Vilnius and Kaunas. This is reported to be the first diesel service to be introduced in Lithuania, and it is stated that the distance, some 80 miles, is covered in half the time taken by the ordinary passenger trains.

Publications Received

Technical Improvements on the German Railways.

The British Intelligence Objectives Sub-Committee Overall Report No. 16, by H. Holcroft. H.M. Stationery Office. 3s.—Although entitled "The Railways of Germany during the period 1939-1945," this is only what its author claims it to be: in his words it "covers the branches of Civil, Mechanical and Electrical Engineering, in so far as they relate to practices extant on German railways." As a prominent locomotive and civil engineer, Mr. Holcroft enjoys expert knowledge of his subjects, but was handicapped by the necessarily scattered nature of the information which he has sifted and collated. This has been done with care, and there is a comprehensive bibliography. It would have been interesting to hear more of rail welding in tunnels, in which the Reichsbahn was among the pioneers; of the organisation of labour for track maintenance; of the architectural treatment of bridges and stations, even in temporary wartime repairs; of conveyors and other mechanical equipment for handling freight; of ticket-printing machines for booking offices; of the "Basa" railway telephone network; and of cistern and hopper wagons. In his introductory paragraphs the author hints at the difficulties under which the German railways were operated, difficulties not only akin to those of the British railways at that time, but accentuated by the vast distances for which

through working under German supervision (which was itself a drain on manpower) had to be effected over the systems of the occupied countries. That these were surmounted until the last year of the war was due to prodigies of operating skill and to the fortitude and resourcefulness of German railwaymen. For reasons stated by Mr. Holcroft, the technical development of the Reichsbahn was neglected for more warlike purposes. This was not the case with the science of operating; but it is doubtful if the history of the operation of the Reichsbahn during the second world war ever will be written.

How to Draw Locomotives and How to Draw Rolling Stock. By Paul B. Mann. London: The Studio Limited, 66, Chandos Place, W.C.2. 6½ in. x 5½ in. 64 pp. Illustrated. Price 3s. each.—"How to Draw Locomotives" first appeared in 1942, and a revised edition now has been published simultaneously with a new book in the same series entitled "How to Draw Rolling Stock." In both of these books the author does not indicate so much hard-and-fast rules for drawing, but rather represents the methods which he has found by experience to be the most satisfactory. The books contain a collection of notes and drawings, some detailed and others quick impressions, of British, American, and Continental locomotives and rolling stock; the drawings are shown, in many cases, in different stages of completion and a fair picture

can be obtained from them of the order in which the various components should be sketched in, as well as the principles of shading. Whether the artist wants to make detailed drawings for records or wants to study the subject from the pictorial aspect he will find a guide to all styles in these books.

Hot-Rolled Strip.—Steel strip enters into the manufacture of a considerable range of metal products, and the United Steel Companies Limited has recently published this 27-page illustrated brochure describing the production of hot-rolled strip at the United Strip and Bar Mills, Sheffield. Sections of the brochure present an illuminating account of the many rolling processes.

Nos Gares et Leur Personnel. By W. Tribelhorn. Lausanne: Librairie Payot. 7½ in. x 5 in. 93 pp. Illustrated. Price not stated.—The first of a new series of illustrated handbooks on the Swiss Federal Railways (Cahiers des C.F.F.) was devoted to locomotives; this, the second of the series, describes the very fine stations and highly organised goods service of the principal Swiss railway system. In addition to 50 excellent illustrations, which include aerial views of the track layout at Zürich Hauptbahnhof and Bâle-Mutzen, there are diagrams showing handling methods employed at goods depots, and plans of small stations. Herr Tribelhorn's German text has been translated into French by M. H. Bayard.

Motive Power Requirements of Colonial Railways

Advantages and disadvantages of steam and diesel-electric motive power under the special conditions of Colonial railways

By G. V. O. Bulkeley, C.B.E., M.I.Mech.E.,
formerly General Manager, Nigerian Railway

TWO widely dissimilar railways, the Canadian Pacific Railway and the Ceylon Government Railway, have announced that they are contemplating a total substitution of diesel-electric motive power for steam.

In the case of a strongly financed railway, such as the C.P.R., with its highly skilled technical staff and modern equipment, the expert handling, servicing, and maintenance of a new type of motive power can be taken for granted. In the case of a Colonial railway, however, these factors are weighty matters, because capital expenditure has to be conserved and local drivers and mechanics have been trained during the past 50 years to deal with steam power. That Ceylon should be contemplating such a change-over is of special interest.

In coming to such a decision for any particular railway, many factors have to be considered and all costs brought down to a cost-performance factor common to both types of motive power, some of these factors being the relative availability and cost of diesel fuel oil and of steam coal, the capital cost, interest and depreciation charges, maintenance and servicing, relative running and handling considerations, sustained drawbar pull, service availability, and effect on track maintenance.

At current prices a diesel-electric locomotive costs about twice as much as a steam locomotive of equal power. The economic life of an expertly maintained diesel as purchased is probably about 50 per cent longer than that of an equivalent steam engine.

In using the term "economic life" some definition is necessary. As the author understands it the economic life of a locomotive is that period of working years during which its total costs will be at their minimum per unit of haulage after the most suitable service for that particular engine has been determined and adhered to and expert maintenance applied. This figure is, therefore, to some degree theoretical.

The diesel would have to earn double interest charges relative to its steam competitor. Depreciation would be on a capital cost of £x for the steam engine and on £2x for the diesel. Their relative economic lives being as 1:1.5, depreciation charges will be about one-third higher for the diesel, which would have to earn that by improved cost-performance.

Maintenance

While conclusive figures are not yet available, it would appear that maintenance costs for steam and diesel-electric locomotives per unit of haulage are likely to be similar. Spare boilers for steam locomotives and spare engines and electrical equipment for diesels speed up overhauls on both. The capital cost of stocking such spare units has to be taken into account. The necessary auxiliaries have also to be borne in mind, and these include radiators and cooling fans, storage batteries or compressed air for starting the engine, and ventilating fans for the traction motors.

Servicing is quicker, and, therefore, cheaper in the case of the diesel, due to absence of boiler washing, but the use of hot-water boiler washing, using steam on the injector principle to heat the water, has

improved and facilitated that service. With diesel motive power, watering, coaling, and ash-disposal equipment would be dispensed with, but it has been found that water for diesel cooling should be treated to avoid trouble with cylinder liners. Availability is undoubtedly in favour of the diesel provided it is expertly maintained. An availability of 90 per cent. should be possible on a Colonial railway.

A characteristic of the diesel locomotive is that the engine cannot start under load and must be transmitted to the wheels through a more elastic form of power. In the diesel-electric locomotive this takes the form of an electric generator with electric motors driving the wheels. An advantage of this arrangement is that the horsepower of the engine can be at its maximum irrespective of speed over the track. It does not increase with speed, nor can it draw extra power from a remote power station, as with an electric locomotive.

While the piston speed of a steam locomotive is held down at slow track-speeds by mechanical coupling to the wheels, that of the diesel-electric engine is not so restrained, which results in a greater drawbar pull at lower speeds in favour of the diesel, together with correspondingly enhanced acceleration to that point where the drawbar power curves of similar steam and diesel locomotives cross; thereafter, the steam machine, cylinders no longer restrained, will take the lead.

There being no rodding to be balanced, except in coupled diesel shunting engines, the diesel-electric unit has no unbalanced forces in the vertical plane, and rides easily. Its centre of gravity being low, it can safely take curves at somewhat higher speeds than are advisable with the steam engine, but side-thrust on the rails, due to the low centre of gravity, exerts a spreading effect which has to be taken care of in track anchorage and maintenance.

The foregoing briefly covers the main aspects of similar steam and diesel-electric units, under the scrutiny of cost-performance relative to earning power, but there are special factors in the case of Colonial railways which call for careful consideration. The diesel shunting engine has every advantage over steam power for that type of service.

Capital and depreciation charges being substantially higher for the diesel, this engine must earn that much more to pay its way, which means that what it earns, less what it spends on itself, must show a resultant figure sufficiently higher than that of equivalent steam power. Colonial railways seldom have sufficient money available for equipment other than that which gives the highest monetary return.

With a diesel-electric unit the engine is independent of track speed (S) and horsepower is almost constant.

$$\text{As T.F.} = \frac{\text{h.p.} \times 375}{\text{S}}$$

drawbar pull falls off with track speed where horsepower is constant. With a steam locomotive, where piston speed is dependent on r.p.m., horsepower increases with track speed to that point where the cylinders can use all the steam that the boiler can supply.

In fast traffic, the diesel-electric locomotive will show accelerative advantages over

a large-wheel steam locomotive of equal power up to 35-40 m.p.h., when the steam engine gains the advantage. The position is not quite the same, however, where the steam engine has small wheels, which enables acceleration to be rapid up to full horsepower. In such a case, diesel-electric superiority in getting away with the load is likely to taper out at about 20 m.p.h., which is the speed of freight trains on most Colonial railways.

Passenger trains on Colonial railways do not usually exceed 40 m.p.h., at which steam locomotives with the usual six- or eight-coupled wheels of from 4 ft. to 4 ft. 6 in. are still below diameter speed. It would appear from the foregoing that traffic suitable to take advantage of initial accelerating ability is a major factor. The question to be answered is whether a railway operates under such traffic density.

Modern small-wheel steam locomotives for Colonial railways, with their improved steam distribution, show a great advance over even a few years ago, when much potential boiler power remained locked up and never reached the wheels. Cross-balancing, and allowing for the mass of the engine in percentage balancing of reciprocating parts, has reduced dynamic augment and impact.

A diesel locomotive is usually heavier and of greater length than a non-articulated steam locomotive of equal power. The Garratt steam locomotive has greater length, but no greater weight, as only one tender is used. A 111-ton Garratt of 1,200 h.p. with six-coupled wheels and 225 lb. boiler pressure, can, with 48-in. wheels, deliver a starting tractive force of 35,000 lb., and 23,000 lb. at 20 m.p.h., on an axle loading limited to 9½ tons. It would be interesting to know whether diesel power can improve on this.

Use of Coupled Units

Diesel-electric units are obtainable in units of moderate power, two or more of which can be coupled for working heavy trains, and something similar can be done with steam power by employing a Garratt of, say, 50,000 lb. tractive force for heavy work and engines of 25,000 lb. tractive force for lighter trains, all parts except boilers being standardised; or, by using slightly heavier rodding than necessary on a Garratt of 40,000 lb. tractive force, the same could be used on a non-articulated class of more than half the tractive force of the Garratt.

The fact that the largely non-European personnel of drivers and artisans on most Colonial railways have been trained in, and are experienced in, steam power is a consideration that should not be overlooked when reviewing the introduction of a new type of power. Although these men do good work in the shops and on the footplate, attention to trouble on the road is not their long suit, while sustained effort and sense of responsibility often leaves something to be desired. With diesels, any careless workmanship would quickly result in failures.

Expert maintenance has always been a governing factor in diesel operation, and a point in favour of steam power is its ability to operate without much loss in power under inferior maintenance, provided the boiler is kept clean.

In an all-in introduction of diesel power, existing servicing, equipment for coal, water, and ash-disposal would be dismantled, but interest on their capital cost would remain, and oil installations would have to be erected.

Also, while availability is undoubtedly a point in favour of diesel power, train

density is not normally high on most Colonial railways. Enhanced availability might not mean fewer engines to do the work unless traffic density enabled that factor to be usefully employed.

On a 13½-ton axle loading, a large-boiler 4-8-0 steam locomotive can be constructed within Colonial loading gauges. With 4 ft. 8 in. wheels, 18 in by 30 in. cylinders, and a boiler pressure of 220 lb., starting tractive force at 85 per cent.

boiler pressure would be 32,458 lb. A valve travel of 7 in., with lap 1½ in., and lead ½ in., would give a front opening of 1 in. at 25 per cent. cut-off. Using large-diameter piston valves, large-capacity steam chests, generous cross-sectional areas for all steam flow, and with twin exhausts, such an engine would accelerate rapidly and be free running.

The Ceylon Government Railway has had some years of experience with diesel-

hauled suburban trains on its coastal line from Colombo. It would be of real assistance, therefore, to other railways working under similar conditions were the Ceylon Government Railway management to publish details of its experience with diesel power, from both mechanical and traffic viewpoints, and to give comparative costs reduced to a common haulage basis for the use of both modern steam and diesel locomotives.

Interesting Bridge Reconstruction in France

A handsome concrete viaduct, the fourth on the site, erected without interference to a temporary wartime structure



New viaduct at Chérizy, S.N.C.F.

THE Paris-Granville double-track main line of the French National Railways crosses the Eure Valley near Chérizy on a viaduct in an east-west alignment. The original bridge, built in 1860, consisted of five stone arches of just over 15 metres span each and was partially destroyed during the Franco Prussian War in 1870. It was not affected by the 1914-18 war, but was totally destroyed in 1939-40.

During the occupation the Germans built a temporary double-track bridge, consisting of a deck of concrete, reinforced with rails and supported by steel trestles erected more or less on the foundations of the old stone piers. This bridge, in turn, was totally destroyed during the German retreat in 1944. Immediately afterwards another temporary bridge was built by the American Army with British military standard equipment. Although built within a short time, this new bridge proved a fairly solid structure of good appearance, so that its final replacement by a permanent bridge was not of the highest priority.

In 1946 the tender by the Entreprises Desplats et Lefèvre for the construction of the permanent bridge was accepted. The work was completed in 1948 and is described in our Belgian contemporary *La Technique des Travaux*, to whom we are also indebted for these notes.

The project worked out by MM. Cauvy and Lecouillard of the French National Railways envisaged a twin bridge of reinforced concrete, consisting of a parabolic central arch of 27 metres span and 12 metres rise which is flanked on either side by two continuous spans of about 14 metres each. The tracks across the bridge are on a gradient of 1 in 125.

As the top of the central arch was placed at about ½-metre below the superstructure of the temporary bridge, it was found prac-

ticable to construct the permanent bridge without serious interference with the traffic using the temporary bridge above. The construction of the concrete arch of the new bridge right across the trestles supporting the temporary bridge obviously called for great engineering skill. In addition the work was made specially difficult by the presence of so many different foundations of the former viaducts.

To obtain safe foundations for the new piers without endangering the foundations of the temporary bridge through the cossions caused by pile-drivers, it was decided to use "Forum" piles of the Franki

Piles Company, which are sunk by means of compressed air. Altogether 144 piles, 9 metres in length, were used.

The process of erecting the new arch through the trestling of the temporary bridge called for the successive replacement, in numerous stages, of the various members of the trestles, whilst the stresses were temporarily transferred to adjacent members by means of reinforced concrete beams. Certain vertical members were temporarily embedded in the concrete and removed after the hardening, whereupon the voids were filled up with concrete.

The two parallel twin arches were constructed simultaneously. The timber centering was supported by a scaffolding of tubular steel which, in its turn, rested on steel girders spanning the river. The lateral piers were erected at the same time and likewise founded on "Forum" piles. The work was completed according to schedule for the 1948 Whitsun traffic.

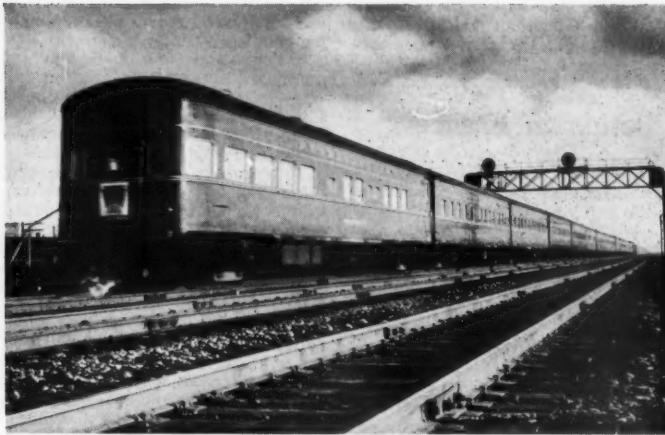
SCAMMELL LORRIES LIMITED.—At the recent annual meeting of the company, whose financial results were given in our June 24 issue, Mr. E. R. Cartwright, Chairman, said that, although they had managed to maintain high output level, the present position was due to a starved world rather than to a healthy state of affairs. Already there were signs of reaction. Government restrictions made it impossible to achieve the output which would permit the delivery of greater numbers of vehicles to home users. Increased productivity would follow release from these restrictions. During the year prototypes of the new "Scarab" mechanical horse, which was designed originally for the home market, were demonstrated and approved in a number of Continental countries, and its advantages were being pressed also in the U.S.A.



Piers for permanent bridge being erected without interference to temporary span

The New "Broadway Limited"

New rolling stock, provided under the Pennsylvania Railroad \$217 million post-war renewal programme, affords increased luxury and some novel features



Observation car of the new "Broadway Limited"

THE Pennsylvania Railroad has placed in service two new trains, costing nearly \$5 million, for the "Broadway Limited," which runs between New York and Chicago. Like its rival, the New York Central "Twentieth Century Limited," the "Broadway Limited" has reverted to a 16-hr. schedule for the

908-miles journey (961 miles by the more easily graded New York Central route). Although no day coaches run in these trains, no extra fare is now charged, apart from supplements for the various types of sleeping accommodation provided.

From New York (Pennsylvania Terminal) to Harrisburg (195 miles) trains

are hauled by electric locomotives. This part of the journey is over the longest stretch of six-track line in the world, between Jersey City and Philadelphia. For the remaining 713 miles to Chicago, diesel-electric locomotives work principal main-line trains.

The new stock was designed by Pennsylvania Railroad engineers and constructed by three well-known car-building firms. The cars are built of high-tensile, low-alloy steel, and equipped with tight-lock couplings to ensure smoothness in starting and stopping the heavy trains. Lighting is fluorescent, and the air-conditioning plant is of an improved type, the temperature in each sleeping compartment being controlled by the passenger. Windows have double insulated panes, the inner of safety-glass and the outer treated to reflect, rather than to pass into the car, the heat of the sun.

Twin-Unit Restaurant Cars

A pioneer in developing twin-unit restaurant cars, the Pennsylvania Railroad now introduces them in their latest and most attractive form, one car being a full-length saloon, seating 68 passengers, with kitchen, pantry, and dormitory accommodation for restaurant car staff in an adjoining vehicle. An interesting feature is the sliding doors between the cars, controlled by foot treadles, which open automatically as waiters go to and from the kitchen. The lounge car, located immediately ahead of the restaurant car, includes built-up murals in Pennsylvania Dutch and Early Press Glassware motifs.

The order of marshalling is kept constant, in accordance with American practice in trains of this type, by com-



The new lounge car, decorated in pastel shades, has fluorescent lighting and upholstery in coral, turquoise, and grey. Refreshments are served from a stainless-steel buffet



Private rooms have folding beds, bathroom with shower, and radio



Partitions between double bedrooms may be folded back if required

plete reversal at terminals by means of loops or triangles.

Sleeping facilities include "compartment" double bedroom, duplex room, and roomette accommodation. The "compartment" provides comforts never before available in this type of accommodation, such as the enclosure of lavatory facilities in a separate room, a feature extended to all sleeping rooms occupied by more than one person. The double bedrooms consist of three types of this accommodation, and include twin beds, said to be the first of their kind in a railway sleeping car. The twin beds are arranged by folding away the partition between adjoining

"parallel" type bedrooms, so that they can be occupied *en suite*; each bedroom has a wardrobe.

Duplex Rooms

The duplex rooms for individual occupancy are arranged transversely in pairs, alternating "upstairs" and "downstairs," each pair intercommunicating with a door which can be opened as required; a wide sofa by day becomes a full-length bed by night. Lavatory facilities are provided.

The single-occupancy roomette provides by day a comfortable sofa-type seat; by night the bed is opened from the wall when the passenger touches a lever.

Privacy is assured by a "zippered" curtain and sliding door, and there are lavatory facilities, wardrobe, wide luggage-rack, and full-length mirror. The colour schemes are rich and bold.

Between New York and Harrisburg, in either direction, a telephone service is available, with radio contact between the train and local telephone exchanges. An attendant operates a telephone-room in the lounge car.

The "Broadway Limited" is the first Pennsylvania train for which entirely new stock has been provided since the war. Re-equipment of other principal trains with similar luxurious stock is in progress.

A Canadian Experiment in Freight Loading

A flexible bulkhead of simple but robust construction

WITH the object of reducing the damage factor in transporting less-than-carload shipments of freight, a new experiment in freight car loading is being carried out by the Canadian National Railways on the Montreal-Toronto lines. The company's engineers have designed a flexible bulkhead of construction so simple that an ordinary labourer can set it up or remove it in 15 minutes, yet able to anchor packages securely in sub-divisions within the freight car so that they will not shift in transit.

Wooden Crossbars

A 50-ton sheathed box car is being used for the trial. Stout cables have been stretched along the side walls of the car, attached to counter-sunk pinions. Bolted to these cables, wooden guides are suspended vertically from roof to floor at measured distances apart. When a section has been loaded, wooden crossbars, the width of the car, are inserted into the guides on each side and secure the packages and prevent shifting, as shown in the accompanying illustration.



C.N.R. officials inspecting a flexible bulkhead designed for transporting less-than-carload shipments of freight

The bulkhead can be removed from the car at any time to permit bulk movements such as grain and similar commodities,

and sufficient choice of locations for the side-wall guides are available to provide for irregular loading.

The New "Broadway Limited"

(See article on page 42)



The dining car seats 68 passengers in magenta red chairs and is decorated in pale grey with violet carpeting



The observation car, furnished with sofas and lounge chairs in turquoise, has fluorescent lighting and wide windows at the rear. Refreshment service is provided

Treatment of Underground Coach Seats

Mechanical handling of materials ensures speedy completion of repairs

WHEN the London Transport railway overhaul works at Acton were extended before the war, provision was made for a new trimming shop for the cleaning, repair, and upholstering of car seats and backs, and for the proper storage in sets of all seats belonging to cars passing through the workshops, about 70 sets at any one time. A material stores and a material preparation section are incorporated in the new shop.

This new shop, which is situated at the north-west end of the works, lies between the incoming and outgoing roads of the depot. As cars for overhaul enter the works, seats and backs are removed on a special unloading platform at one end of the shop, and after treatment they are replaced from a similar platform at the opposite end.

On arrival, the seats are first inspected, work to be done then decided on, and surface dust removed from the underside and backs in a special "blow-out" cubicle. Seats requiring re-upholstering are then passed through a seat-beater, where they are treated by mechanical means, after which a conveyor takes them to the stripping section, where the old upholstery is removed and repairs to framework carried out. When this part of the work is completed the seats are placed on an overhead chain conveyor circulating along the benches.

Material required for a particular unit, prepared beforehand in the material preparation section, is attached to the same hanger on the conveyor; this method ensures that there is no hold-up either for seats or material. Each man removes the seat and its new material as required and replaces the re-upholstered unit on the same conveyor. These finished units are transferred then to a loading conveyor for removal to the storage area.

Seats which on inspection are found to require only cleaning, are taken on a platform conveyor along the north side of the shop, first to the beating machine, and then to the wet-cleaning machine where they are sprayed with a cleaning agent and brushed mechanically, except the edges and ends which have to be dealt with by hand as the seats emerge from the cleaning machine. They are then passed through an electric drying oven. At the end of the conveyor the seats are transferred to the loading conveyor, and at this point join seats which have come from the re-trimming section.

Stillage Storage

Seats are stored in stillages, each capable of carrying a complete car set, loading of the stillages being carried out on a high-level platform, after which they are removed to the storage area by a tiering truck. The trimming shop is kept daily informed by the progress section as to the sets required the next day. The stillages containing these are then removed from the storage area and placed at floor-level next to the despatch stage, with sufficient space provided for eight car sets. At the despatch stage the arm-rests are replaced and the seats are then ready for re-fitting to the cars.

To facilitate the loading and unloading of seats the floor of the trimming shop has been laid at the same level as the floors of the Underground cars.



Section of works showing cleaning and drying machines on the left and chain conveyor on the right



Material preparation section at Acton



Tiering truck handling stillages

Roll-out Battery Box for Railway Carriages

A new design of box permitting easy access for servicing or removal

THE various electrical devices provided on modern railway coaching stock are expected to function satisfactorily over long periods without breakdown, and a high standard of maintenance is consequently essential. This requirement applies with particular significance to the storage battery, which must be relied on to supply current for the various services when carriages are standing or travelling at slow speed. Furthermore, efficient maintenance is required not only to ensure reliability of service, but also to prolong the life of the batteries.

Increased Electrical Loads

Batteries carried in container boxes suspended from the underframes have always been somewhat inaccessible for maintenance purposes, and the problem has been intensified in the past few years by increased electrical loads on passenger stock, due to the introduction of electrical air conditioning, refrigerating, heating and water raising, in addition to lighting. The capacities of coach batteries have grown from 125 amp. hr. to 450 amp. hr., the output from 3 to 50 kWh., and the number of cells from 24 to 56. To accommodate the increased number of cells of larger overall dimensions, battery boxes have been extended in height to the bottom of the underframes; the clearance between the cell terminals and the top of the battery box has been reduced to a bare minimum; and the cells have, in many instances, been arranged in banks up to 4 and 5 deep.

These conditions have rendered the cells most inaccessible, and it has become increasingly difficult to ensure that they are regularly flushed and cleaned, that mechanical faults are adjusted without undue delay, and that the height of the solution and the state of charge are continually maintained.

During recent years, one of the United States railways has adopted a type of battery box which permits the complete

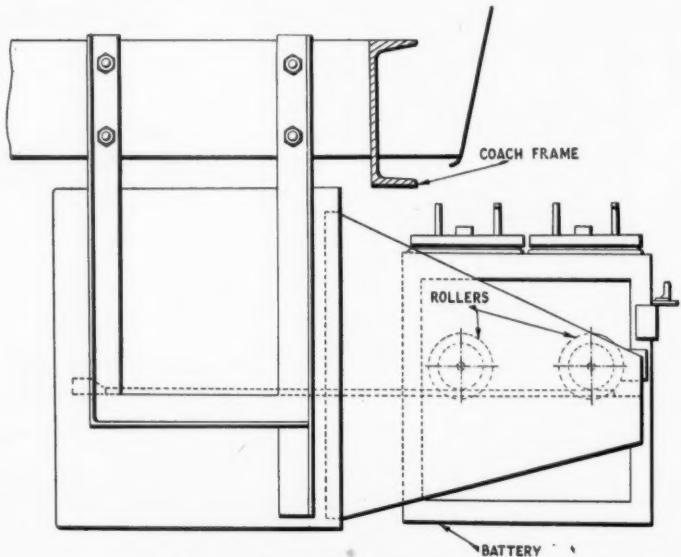
battery of cells to be readily rolled out from beneath the underframe to the side of the coach, thus providing access to each individual cell. In compliance with a request by Mr. W. F. Wigener, Chief Mechanical Engineer of the Malayan Railway, a roll-out battery box has been developed for fitting to a consignment of coaches built in Great Britain by the Birmingham Railway Carriage & Wagon Co. Ltd. This is illustrated below.

The box is of steel construction throughout and is suitably coated for insulating purposes and to protect the steelwork against the corrosive effects of the electro-

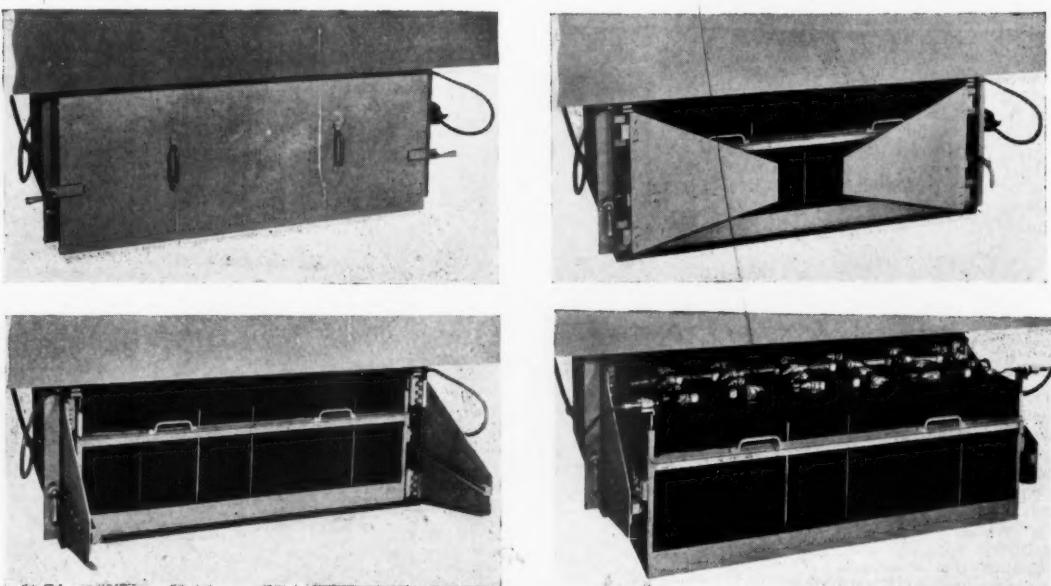
lyte. The main part of the box is secured to, and suspended from, the underframe. At each end is arranged a fixed track connected to a movable track provided on steel wings hinged to the front of the box. The cradle which contains the cells is of skeleton construction, with heavy angles at the bottom, reinforced with corrugated plate to carry the load. It is fitted at each end with a two-wheel roller assembly which allows it to be rolled out on the tracks when the two hinged wings are turned outwards.

The rollers are equipped with ball bearings, and one operator can easily roll out the cradle carrying the complete set of fully-charged cells to the position shown. The containing angle-bar carrying the pull-out handles is removable from the cradle, thus permitting individual cells to be taken

(Continued on page 49)



Battery fully withdrawn for inspection



Roll-out battery box, showing stages in withdrawal of battery for inspection and servicing

RAILWAY NEWS SECTION

PERSONAL

Mr. O. V. S. Bulleid has been elected President of the Institute of Welding for 1949-50, and Mr. C. S. Milne has been elected Vice-President. Mr. Bulleid, who is about to retire from his present post as Chief Mechanical Engineer, Southern Region, British Railways, has been appointed Consulting Mechanical Engineer to Coras Iompair Eireann (Irish Transport Company). Mr. Milne is founder and head of the firm of C. S. Milne & Co. Ltd., Deptford.

Mr. Raymond Birch has retired from the Chairmanship of the Public Transport Association, which he has held since June, 1947, and Mr. John Watts has retired from the Vice-Chairmanship, which he has held for four years. Mr. G. F. Sinclair has been elected Chairman, and Mr. W. T. James and Mr. R. J. H. Longman, Vice-Chairmen.

Sir Miles Thomas, hitherto Deputy-Chairman of British Overseas Airways Corporation, has taken over the Chairmanship from Sir Harold Hartley, on the expiry of the latter's term of office. Mr. Whitney Straight succeeds Sir Miles Thomas as Deputy-Chairman, while continuing as Chief Executive.

Mr. K. R. M. Cameron has been appointed District Motive Power Superintendent, Gorton, Eastern Region, British Railways.

We regret to record the death, aged 68, of Mr. E. D. Cotterell, who was Vice-President, Eastern Lines, Canadian Pacific Railway, from 1944-47.

Mr. J. A. R. Stedeford, Chairman & Managing Director of Tube Investments Limited, left by air for India on July 3. Mr. Stedeford, who is accompanied by Mr. Arthur Chamberlain, a Director of the company, will visit Delhi, Bombay and Madras.

ROAD HAULAGE EXECUTIVE

The Road Haulage Executive announces the following appointments:—

Mr. G. A. H. Cardwell (formerly Assistant General Manager, Eastern Counties Omnibus Co. Ltd., and responsible to General Manager for the work of the Engineering, Traffic and Secretarial Departments) to be Deputy Chief Engineer at headquarters.

Mr. C. F. Roberts (formerly Chief Engineer, Transport Services Limited) to be Divisional Stores Officer, South Eastern Division.

Mr. L. E. Briggs (formerly Area Manager for South Wales, Carter Paterson & Pickfords Joint Parcels Services) to be District Manager, Gloucester, Western Division.

Mr. J. P. Young (formerly Manager in charge of vehicles and traffic for Young's Express Deliveries Limited) to be District Manager, Glasgow, Scottish Division.

Mr. George Cardwell, M.Inst.T., who has been appointed Chairman of the newly-constituted Road Passenger Executive under the British Transport Commission, became a full-time Member of the then Road Transport (now Road Haulage) Executive when that body was set up early in 1948; he now vacates that appointment. Before joining the Road Transport Executive he had been a Director of Thomas Tilling Limited, Chairman of Hants &

North Western Road Car Co. Ltd. He remained General Manager of that undertaking until 1930, during which period the business grew from an undertaking operating about 20 vehicles to one operating 550. In 1930 he was appointed to the executive of Thomas Tilling Limited, and he became a member of the board in 1932. During his 17 years with the parent company he was on the boards of upwards of 22 subsidiary and associated companies. Mr. Cardwell was Vice-Chairman of the Public Transport Association up to the time of his appointment to the Road Transport Executive. He was a member of the Conference of Omnibus Companies and of the National Council for the Omnibus Industry, and had been Chairman on both those bodies.

Mr. A. Louis Régamy, General Agent of the S.A. Canadian National Railways (France), has retired, and is succeeded by Mr. André Thubet.

We regret to record the death on June 28 of Mr. Albert Weddell, Chairman, and until recently also a Managing Director, of W. G. Allen & Sons (Tipperary) Ltd.

Mr. K. Shave has been appointed Divisional Engineer (Northern Division), Country Buses & Coaches, Department of the Chief Mechanical Engineer (Road Services), London Transport, with headquarters at St. Albans, and Mr. W. I. Kirchner has been appointed Divisional Engineer (Southern Division), Country Buses & Coaches, at Reigate.

Mr. C. J. Franklin has been appointed Secretary of the Catering Wages Commission, in succession to Mr. J. M. Vincent Smith, who has taken up other duties within the Ministry of Labour.

Mr. Arthur C. Taylor has been appointed to the new post of Development Officer at the head office of Thos. Cook & Son Ltd., with special responsibility for business houses traffic.

ARGENTINE RAILWAY STAFF CHANGES
Mr. T. C. Woods, Chief Engineer, General San Martín Railway (former B.A.P.R.), has resigned from that position.

Mr. W. J. Burton has retired from the position of Chief of the Revenue Audit Division of the former Buenos Ayres Great Southern, Western and Midland Railways.

Mr. F. C. Foulsham, Signals Superintendent, General San Martín Railway, has retired on pension, and Mr. W. E. Treiman has resigned as Telegraphs Superintendent of the same railway.

Mr. P. Falconer, Chief Mechanical Engineer, General Mitre (former Central Argentine) Railway, has retired on pension.

Lt.-Colonel E. H. Echezarreta, General Manager, General Urquiza Railway (former Entre Ríos and Argentine North Eastern systems), is now responsible also for the operation of the recently-acquired Buenos Aires Central Railway.



Mr. George Cardwell
Appointed Chairman of the Road
Passenger Executive

Dorset Motor Services Limited, Thames Valley Traction Co. Ltd., and Wilts & Dorset Motor Services Limited, and a Director of many other bus companies. He received his early engineering training as a premium pupil with the Brush Electrical Engineering Co. Ltd., and was for a time in charge of the Leeds office of the company. In 1906 he was appointed General Manager of the Hartlepool Electric Tramways Company, one of the B.E.T. Group. In 1911, on the sale of that undertaking to West Hartlepool Corporation, he became General Manager of the Devonport & District Tramways Company, another B.E.T. company, which in 1915 was acquired by Plymouth Corporation, when Mr. Cardwell was appointed General Manager of the Aldershot & District Traction Co. Ltd. In 1916 he was commissioned in the Royal Engineers, and served in England and France until 1919. On demobilisation he was appointed General Manager, Macclesfield Branch, British Automobile Traction Co. Ltd., which was later formed into the

Mr. H. F. Pallant, Assistant Divisional Operating Superintendent, York, North-Eastern Region, British Railways, will shortly leave this country, at the invitation of the Nigerian Government, following the submission of his name to the Colonial Office by the Railway Executive, for a three months' tour of the Nigerian Railway. He will investigate the operating problems of the railway, and ascertain whether there are any methods by which operating capacity could be increased.

Mr. W. Gourley, District Engineer (ex-L.M.S.R.), Edinburgh, Scottish Region, British Railways, who has retired, entered the Chief Engineer's Office of the Caledonian Railway as an apprentice in 1901. Before his appointment in 1936 as District Engineer, Edinburgh, he was Permanent Way Assistant in the L.M.S.R. Divisional

gaining experience in the locomotive, road motor, marine, and outdoor machinery departments, and the drawing office, was appointed Assistant Locomotive Foreman at Longsight, Manchester, subsequently holding similar positions at Bangor, Chester and Preston. During the 1914-18 war he served in France, and later in South Russia, Turkey, Persia, Palestine and Egypt. On demobilisation he returned to the railway service at Huddersfield, and in 1921 he became District Locomotive Superintendent at Carlisle. In 1928 he was appointed District Locomotive Superintendent, Bletchley, which post he vacated in 1934, to take up a similar position at Accrington. In 1941 Mr. Nelson returned to Carlisle as Locomotive Superintendent in the L.M.S.R. area covered by the terminal points Beattock-Stranraer in Scotland and Penrith-Workington in England,

lon), Mr. J. C. L. Train, Mr. F. C. Vokes (Midlands), Sir Hubert Edmund Walker (Colonies), Mr. W. K. Wallace, Mr. D. M. Watson, Mr. J. P. Watson, Mr. Guthlac Wilson.

Four Past-Presidents will be appointed by the Council in November.

Mr. E. C. Ottaway, Works Manager (Buses & Coaches), London Transport Executive, who has been responsible for three outstanding designs of London Transport road vehicles, has been appointed a Royal Designer for Industry.

Mr. N. D. Jenkins, who has been appointed District Goods Superintendent, Newport, Western Region, British Railways, entered the service of the Great Western Railway at Cardiff Goods Station in 1906, and was later transferred to the



Mr. W. Gourley

District Engineer (ex-L.M.S.R.), Edinburgh, Scottish Region, British Railways, retired



Mr. G. H. Nelson

Appointed District Motive Power Superintendent, Glasgow (North), Scottish Region, British Railways



Mr. N. D. Jenkins

Appointed District Goods Superintendent, Newport, Western Region, British Railways



Mr. R. H. Whittington

Appointed District Traffic Superintendent, East African Railways & Harbours

Office in Glasgow, and before had been engaged in both district and head office work with the Caledonian Railway. Mr. Gourley's father was a member of the Chief Engineer's Department of the Caledonian Railway for 44 years.

Mr. Douglas Graham Clarke has been elected a Director of the San Paulo (Brazilian) Railway Co. Ltd., in place of Brigadier-General Guy Lubbock, who has resigned.

Mr. C. W. C. Hine, a Director of George Spencer, Moulton & Co. Ltd. and Manager of its Railway Department, retired on June 30, after 57 years' service with the company.

Mr. W. J. Borrowman, who has been associated with the Sulzer interests for over 25 years, has been appointed Manager of the Diesel Department of Sulzer Bros. (London) Ltd.

We regret to record the death in Paris, at the age of 83, of Baron Edouard de Rothschild, President of the Northern Railway Company of France (which still exists to hold shares in the French National Railways and non-railway properties).

Mr. G. H. Nelson, who, as recorded in our April 22 issue, has been appointed District Motive Power Superintendent, Glasgow (North), Scottish Region, British Railways, served his apprenticeship in the Crewe works of the L.N.W.R. and, after

from which post he now takes up his new appointment.

INSTITUTION OF CIVIL ENGINEERS

The Council for 1949-50 of the Institution of Civil Engineers has been elected, with effect from November 1 next, as follows:—

President: Mr. V. A. M. Robertson; Vice-Presidents: Dr. W. H. Glanville, Mr. A. S. Quartermaine, Mr. H. F. Cronin, Mr. W. P. Shepherd-Barron; other Members of Council: Mr. H. E. Aldington, Sir Donald Bailey, Professor J. F. Baker, Mr. J. A. Banks (Glasgow & West of Scotland), Mr. George Baxter, Mr. W. S. Cameron, Mr. H. E. Campbell (Northern Ireland), Mr. John Chambers (India), Mr. C. L. Champion, Mr. J. T. Chester (Colonies), Mr. A. C. Dean (North Western), Mr. R. H. Edwards (South Wales and Monmouthshire), Professor R. H. Evans (Yorkshire), Mr. E. L. Everett (Pakistan), Mr. H. J. F. Gourley, Mr. R. W. Grigson, Mr. W. P. Haldane (Edinburgh and East of Scotland), Mr. H. J. B. Harding, Mr. A. C. Hartley, Dr. T. H. Hogg (Canada), Mr. A. C. Hughes (Southern), Mr. G. H. Humphreys, Sir Claude Inglis, Mr. Leopold Leighton, Mr. L. A. Mackenzie (South Africa), Mr. G. M. McNaughton, Mr. H. J. B. Manzoni, Mr. G. G. Marsland (South Western), Mr. R. W. Mountain, Mr. W. L. Newham (New Zealand), Mr. Percy Parr (Northern Counties), Mr. Joseph Rawlinson, Mr. C. L. Robertson (North & South Rhodesia), Mr. T. H. Silk (Australia), Mr. A. W. Skempton, Mr. S. G. Taylor (Cey-

District Goods Manager's Office, Cardiff. After filling various positions in that Office, he occupied the Goods Agencies at Treorchy and Bridgend. Returning to the District Goods Manager's Office in 1938, Mr. Jenkins took charge of the General Section, and was appointed Chief Clerk in the district office in 1941; he became Assistant District Goods Manager there in November, 1942. He was appointed Goods Agent at Cardiff in 1946, and has remained in that post until taking up his present appointment.

Mr. R. H. Whittington, who has been appointed District Traffic Superintendent, East African Railways & Harbours, was educated at Forest School, and joined the Great Western Railway in 1926 in the Office of the Superintendent of the Line. After some time in various departments he gained further experience at Oxford and Reading and in the London Divisional Superintendent's Office. In 1938 he was appointed Junior Assistant to the Divisional Superintendent, Paddington. During the war he served as Senior Naval Transport Officer, with the rank of Lt.-Commander, R.N.V.R. He returned to the Great Western Railway in 1946, as Assistant Divisional Superintendent, Bristol, and continued in that appointment until this year. Mr. Whittington comes of an old railway family. His grandfather, Mr. Frank Potter, was General Manager of the Great Western Railway from 1912 to 1919; and his uncle, Mr. F. R. Potter, was Superintendent of the Line of the same railway from 1936 to 1940.

Railway Students' Association Convention

Twelfth annual convention, held at Glasgow, and opened by Sir Cyril Hurcomb, President of the Association

In our last week's issue editorial reference was made to the twelfth annual convention of the Railway Students' Association, London School of Economics & Political Science, which was held at Maclay Hall, University of Glasgow, between June 25 and 28. The majority of those members taking part travelled from London on June 25 and as proceedings were not opened officially until Monday, June 27, the intervening Sunday was occupied with an all-day Clyde Coast cruise by British Railways steamer *Queen Mary II*.

Opening the convention on Tuesday, Sir Cyril Hurcomb, President of the Association, said the programme was full of interest, especially from the transport aspect and they were pleased to add a great commercial city to their list of visits.

The first paper of the convention, "Planning Proposals for Glasgow with Special Reference to Transport," was read by Mr. Armour, in the absence of Mr. Robert Bruce, City Engineer. Further reference to the paper is made elsewhere in this issue. Mr. T. F. Cameron, Chief Regional Officer, Scottish Region, British Railways, introducing Mr. Armour, said that planners were not very popular with some people because he thought they tried to do too much. He had every sympathy with the planners, though some people were worried as to how their objectives were to be reached.

Sir Cyril Hurcomb, who thanked the speaker, said the subject required special study. Mr. Barnes had said the British Transport Commission proposed to set up a special expert committee to report on the planning proposals concerning transport undertakings serving Glasgow and adjacent areas. The rapidity with which roads could become congested had been stressed in the paper and he pointed out that if the railways were not there, the burden thrown on those responsible for the upkeep of highways would be intolerable. The wise approach to planning for the future was to settle on a right course and then proceed by instalments. The question must not be looked at as a road or a rail problem, but as a transport problem. The discussion was then opened by Mr. C. E. R. Sherrington, Vice-President of the Association, and a luncheon followed at St. Enoch Station Hotel.

During the afternoon, members were received at the City Chambers by Mr. Victor D. Warren, the Lord Provost of the City of Glasgow. Alternative visits to Cadder marshalling yards, or Polmadie motive power depot, were arranged for Monday evening.

The party that visited Cadder marshalling yard was escorted by Mr. Kidd, Yardmaster, and Mr. Gibb, Assistant Yardmaster. The yard, which lies between Lenzie Junction and Bishop Briggs, is composed of a 23-line up section handling approximately 1,200 wagons a day and a 20-line down section which deals with some 1,700 wagons daily. Traffic in the up yard, which originates in Glasgow, is largely regular, though in the down yard, where trains approaching Glasgow are handled, there is a far more irregular reception. On an average, wagons run through the yard in some 45 hr.

Mr. R. F. Harvey, Motive Power Superintendent, Scottish Region, Mr. W. K. Hamilton, Assistant District Motive Power Superintendent, and Mr. D. C. Welbourn,

Shedmaster, Polmadie, conducted the party visiting Polmadie motive power depot. Among the installations seen were the engine pits fitted with fluorescent lighting, and an ash disposal plant, in which ashes fall through horizontal bars to a bed of water; a movable belt then removes the ash to a storage bunker. Other details of the depot, including the engine coaling plant, repair shops and hostel, were given in an article which appeared in our issue of September 3, 1948.

Mr. C. E. R. Sherrington was in the Chair on June 28, when Sir Alexander Murray Stephen, Alexander Stephen & Sons Ltd., read a paper on "Development of Shipbuilding to meet Future Requirements." In his comprehensive paper, the author put the subject in its true perspective by first considering the history of shipbuilding. The difficulty of foreseeing the future of shipbuilding was stressed and it was pointed out that although about one half the world's ships were now built in Britain, this position was not likely to continue. A discussion followed and Mr. A. J. Webb, General Superintendent (Staff & Training), Railways, London Transport Executive, proposed a vote of thanks to the speaker.

After lunch, members visited Alexander Stephen & Sons Ltd. shipbuilding yard at Linthouse, where both shipbuilding and

marine engineering aspects of the industry were studied.

Visits to Glasgow-Central and St. Enoch Station signalboxes were arranged during the evening, after which the return to London was made by the 10.10 and 10.20 p.m. trains. Mr. T. Tinning, Stationmaster, Glasgow Central, Mr. Fairweather, Stationmaster, Greenock Central, and Mr. C. Petts and Mr. Stewart escorted the party to Glasgow Central signalbox, which displaced Ann Street and Clyde Place mechanically-operated boxes, and was brought into use in two stages in May and July, 1908. The power frame consists of 348 working levers and 17 spares and 9 spaces. Mechanical locking is fitted at the front of the frame, with the electrical contact rollers at the back; in several cases, extension relays are installed to give an increased number of lever contacts.

The point indication is similar to St. Enoch with an "N" stencil illuminated when the points are normal and an "R" stencil when they are reversed. Point motors are operated by compressed air at some 50 lb. per sq. in. and points levers are checklocked to the normal and reversed positions.

Continuous track circuiting is provided from Glasgow-Central to Gushefaulds Junction on the main lines to the South, and from Central to Bridge Street on the coast lines. The majority of the track circuits are condenser fed, a.c. operation working at 110 volts, though there also are 19 fitted with Westrak units. Altogether, 114 track circuits are indicated in the Central Station box.

Railway Rationalisation in an Argentine Town

The Argentine town of San Juan, capital of San Juan Province in the foothills of the Cordilleras, was struck by an earthquake in January, 1944. The reconstruction of the town has become a pattern for contemporary town and transport planning in Argentina, and the problems involved are being widely discussed in the national press. One paramount problem is the remodelling of the railway lines and stations serving the town.

The lines of the former Buenos Ayres Pacific Railway enter the town from the south and west and form a fairly extensive system of in-town loops mainly used by goods trains. In addition, a metre-gauge line of the former State Railway approaches the town in an arc from the north-east to a separate terminus in the west.

The proposed reconstruction of the town in accordance with modern town planning principles calls for a drastic re-planning and rationalisation of these lines. Exhaustive research has been carried out by the planning authorities in conjunction with the railways. Important objectives were the concentration of passenger traffic in one central station, and the goods and marshalling yards on a site in the north-eastern part of the town, which because of its ground features and the prevailing winds, is to be the main industrial area.

The new main goods yard, which was to be combined with the district abattoir, cold-storage warehouse, and central market, was to form a barrier between the industrial area and the town centre proper. Another important aim was to end the present sectionalisation of the residential, commercial, and administrative parts of the town caused by the present multiplicity of railways.

As a result of these considerations,

a drastic reorganisation of the local railways has been decided on. The lines from the south, west and north-east will be diverted to join a single trunk line which will follow partly the alignment of an existing goods loop, skirting the eastern fringe of the town centre from north to south. The new central station will be built on the site of an existing goods yard at the intersection with the main street crossing the town centre from west to east. The new central goods yard, with the market, abattoir and cold-storage warehouse, will lie further north along the same trunk line, between the town centre and the industrial area north-east of it.

Roll-out Battery Box for Railway Carriages

(Concluded from page 46)

from the battery by lifting them about 2½ in. over the bottom angle of the cradle. When the loaded cradle is in the main box, the hinged wings with the movable track fold in front of the cradle, and a removable steel front cover can then be secured in position.

The roll-out battery box considerably facilitates inspection, servicing, and repairs, and minimises the risk of the cells in the back rows not being properly serviced. It has been so devised that the cradle, complete with the cells in position, can be easily removed from the coach by means of a fork-lift truck, crane truck, or the ordinary type of truck used for transporting batteries.

For this purpose the cradle can be fully rolled out, the two main electrical leads disconnected, the platform trolley run underneath or the crane hooks attached, and the cradle lifted one in. only to clear the stops at the front of the roller track. The leads have been specially designed for rapid connection and disconnection.

British Transport Commission Statistics

Summary of the principal statistics for the four-week period ended April 24

In Number 4 of *Transport Statistics* for the period to April 24,* the British Transport Commission has improved the staff statement by allowing for transfers between the various sections of its employees. The table in our summary, for

* British Transport Commission Statistics, 1949. Series No. 4. Period to April 24. London: British Transport Commission. Price 1s.

example, shows the figure for British Railways as 634,908—a decrease of 327 on the March number recorded in our May 27 issue. The real position is that British Railways added 68 to their staff, as 395 persons were transferred to other sections. In April an increase of 681 in the total staff of the Commission largely was due to Road Transport (Freight) taking over

3,346 employees from acquired undertakings. Mainly due to economies of British Railways, the Commission employed 12,103 fewer on April 24 than on January 1 this year.

Table 2 (A) shows that passenger journeys originating on British Railways were down 12 per cent. in the month of March. For the Southern Region, the decrease was only 7 per cent.; for the rest of the system it was 15 per cent. The worst result was in the Western Region, where the volume of travel declined nearly 22 per cent. despite an increase of almost 13 per cent. in coaching train mileage. The North

STAFF

	Commission's Head Office	British Railways	London Transport	Road Transport (Freight)	Hotels & Catering	Steamship, Marine & Docks	Inland Waterways	Railway Clearing House	Common Services : Commercial Advertisement	Total
No. of employees ...	175 Inc. or dec. ... -2	634,908 +68	101,142 +166	29,632 -29	16,265 +328	25,676 +190	5,199 -38	680 -2	135	813,812 +681

I. BRITISH TRANSPORT COMMISSION TRAFFIC RECEIPTS

	Four weeks		Aggregate for sixteen weeks		Inc. or dec.	
	To April 24, 1949	To April 18, 1948	1949	1948		
	£000	£000	£000	£000		
British Railways—						
Passengers ...	9,068	10,082	— 1,014	29,121	32,609	— 3,488
Parcels, etc., by passenger train...	2,186	2,162	+ 24	8,370	8,591	— 221
Merchandise ...	6,010	6,234	— 224	25,651	27,034	— 1,383
Minerals ...	2,195	2,181	+ 14	9,375	8,797	+ 578
Coal & coke ...	4,988	4,684	+ 304	21,184	20,239	+ 945
Livestock ...	94	76	+ 18	390	299	+ 91
	24,541	25,419	— 878	94,091	97,569	— 3,478
Steamships ...	619	563	+ 56	2,098	1,984	+ 114
London Transport—						
Railways ...	1,129	1,144	— 15	4,474	4,518	— 44
Buses & coaches ...	2,492	2,479	+ 13	9,308	9,386	— 78
Trams & trolleybuses ...	871	890	— 19	3,314	3,407	— 93
	4,492	4,513	— 21	17,096	17,311	— 215
Road Transport (Freight)—						
Freight charges, etc. ...	1,613	—	—	5,795	—	—
Inland Waterways ...	140	131	+ 9	613	546	+ 67
Hotels & Catering ...	987	1,010	— 23	3,773	3,838	— 65

2. BRITISH RAILWAYS

(A) Passengers Journeys Originating in the Month of March

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
Ordinary fares ...	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Monthly return ...	978,000 (—25.53)	760,000 (—24.18)	1,718,000 (—22.20)	900,000 (—16.25)	139,000 (—31.98)	327,000 (—11.53)	4,822,000 (—21.87)
Excursion, weekend, cheap day, etc. ...	3,558,000 (—44.43)	1,407,000 (—50.44)	5,979,000 (—35.04)	2,974,000 (—30.76)	330,000 (—62.80)	698,000 (—47.01)	14,946,000 (—40.08)
Workmen ...	2,306,000 (+67.90)	1,364,000 (+86.31)	2,882,000 (+210.79)	766,000 (+115.03)	568,000 (+121.91)	831,000 (+143.59)	8,717,000 (+118.68)
Other descriptions ...	5,850,000 (—7.10)	1,842,000 (—3.04)	6,735,000 (—1.95)	3,592,000 (+2.46)	937,000 (—2.10)	947,000 (—7.44)	19,903,000 (+4.77)
Season tickets ...	1,091,000 (—26.33)	688,000 (—29.91)	1,248,000 (—25.53)	628,000 (—27.55)	259,000 (—40.11)	330,000 (—23.74)	4,244,000 (—27.71)
Total ...	17,198,000 (—14.46)	7,746,000 (—21.81)	29,430,000 (—6.81)	12,655,000 (—11.08)	2,694,000 (—19.92)	4,530,000 (—15.56)	74,253,000 (—12.18)

(B) Freight Tonnage Originating

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
Merchandise ...	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Minerals ...	1,249,000 (—0.69)	724,000 (—2.83)	263,000 (—4.01)	615,000 (—8.25)	528,000 (—3.53)	600,000 (—0.99)	3,979,000 (—0.48)
Coal & coke ...	1,542,000 (+1.71)	687,000 (+14.94)	115,000 (—11.86)	640,000 (—2.04)	815,000 (+0.43)	693,000 (+16.98)	4,492,000 (+4.43)
Livestock ...	3,956,000 (+12.00)	1,924,000 (+8.07)	246,000 (—1.05)	2,014,000 (+3.29)	2,272,000 (+4.96)	1,672,000 (+3.32)	12,084,000 (+7.00)
Total ...	6,761,000 (+7.03)	3,345,000 (+6.80)	626,000 (—4.41)	3,277,000 (+3.05)	3,621,000 (+2.60)	2,993,000 (+5.30)	20,623,000 (+4.92)

(C) Net Ton Miles

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
Merchandise & livestock	181,039,000 (-2.47)	97,882,000 (-3.47)	23,827,000 (-2.13)	80,000,000 (+6.47)	51,256,000 (+1.95)	80,846,000 (-3.63)	514,850,000 (-1.12)
Minerals	125,645,000 (+0.77)	73,004,000 (+12.51)	12,886,000 (-7.00)	78,448,000 (-11.28)	32,845,000 (-0.32)	42,317,000 (+3.38)	365,145,000 (-0.16)
Coal & coke	284,957,000 (+12.36)	131,558,000 (+17.43)	23,108,000 (+7.84)	161,245,000 (+6.55)	63,998,000 (+4.12)	71,528,000 (+4.63)	736,394,000 (+10.20)
Total, all classes of traffic	591,641,000 (+4.91)	302,444,000 (+8.67)	59,821,000 (+0.32)	319,693,000 (+1.53)	148,099,000 (+2.36)	194,691,000 (+0.78)	1,616,389,000 (+3.97)

(D) Train Miles

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
Coaching train miles—	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Steam—							
Loaded	4,026,000 (+3.76)	2,919,000 (+12.92)	1,463,000 (+9.95)	2,556,000 (+11.92)	972,000 (+4.29)	1,741,000 (+1.02)	13,677,000 (+7.40)
Empty	136,000 (+2.27)	134,000 (+8.61)	54,000 (+14.16)	96,000 (+3.78)	41,000 (+14.40)	57,000 (-12.49)	518,000 (+4.19)
Total, loaded & empty	4,162,000 (+3.71)	3,053,000 (+12.72)	1,517,000 (+10.10)	2,652,000 (+11.60)	1,013,000 (+4.67)	1,798,000 (+0.53)	14,195,000 (+7.28)
Electric—							
Loaded	419,000 (+2.75)	—	2,906,000 (+13.38)	20,000 (-26.84)	90,000 (+9.18)	—	3,435,000 (+11.50)
Empty	17,000 (-5.21)	—	71,000 (+18.46)	2,000 (+11.32)	9,000 (-4.20)	—	99,000 (+11.04)
Total, loaded & empty	436,000 (+2.42)	—	2,977,000 (+13.49)	22,000 (-24.64)	99,000 (+7.77)	—	3,534,000 (+11.49)
Freight train miles—							
Loaded	2,818,000 (+1.67)	1,669,000 (+9.10)	487,000 (-1.65)	1,564,000 (+3.76)	888,000 (+1.78)	1,394,000 (-2.14)	820,000 (+2.55)
Empty	510,000 (+6.11)	203,000 (+9.67)	11,000 (+20.72)	331,000 (+9.87)	212,000 (+13.46)	208,000 (+0.04)	1,475,000 (+7.60)
Total, loaded & empty	3,328,000 (+2.33)	1,872,000 (+9.16)	498,000 (-1.22)	1,895,000 (+4.77)	1,100,000 (+3.85)	1,602,000 (-1.86)	10,295,000 (+3.24)
Total coaching and freight train miles—							
Loaded	7,263,000 (+2.89)	4,588,000 (+11.03)	4,856,000 (+10.66)	4,140,000 (+8.43)	1,950,000 (+3.33)	3,135,000 (-0.44)	25,932,000 (+6.21)
Empty	663,000 (+4.90)	337,000 (+9.46)	136,000 (+16.24)	429,000 (+8.33)	262,000 (+12.93)	265,000 (-2.92)	2,092,000 (+6.84)
Total, loaded & empty	7,926,000 (+3.06)	4,925,000 (+11.34)	4,992,000 (+10.81)	4,569,000 (+8.42)	2,212,000 (+4.39)	3,400,000 (-0.61)	28,024,000 (+6.26)

(E) Freight Train Miles per Train Hour

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
1949	1948	1949	1948	1949	1948	1949	1948
6.99	7.08	9.47	9.42	8.89	8.92	8.18	7.96
1949	1948	1949	1948	1949	1948	1949	1948
9.86	9.75	9.86	9.75	9.86	9.75	9.86	9.75
1949	1948	1949	1948	1949	1948	1949	1948
8.37	8.30	8.37	8.30	8.37	8.30	8.37	8.30

(F) Locomotive Coal Consumption

	Region						Total
	London Midland	Western	Southern	Eastern	North Eastern	Scottish	
Tonnage consumed	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Lb. per engine mile	345,000 (-0.69)	177,000 (+12.04)	75,000 (+10.79)	198,000 (+1.56)	91,000 (+3.37)	171,000 (-3.81)	1,057,000 (+2.25)
	67.11 (-2.84)	54.30 (+2.38)	57.44 (+6.17)	67.37 (-2.71)	65.25 (+0.38)	73.29 (-2.35)	64.55 (-1.34)

(G) Rolling Stock Position

	Operating position	Number under repair	Serviceable stock	Serviceable stock in 1948
Locomotives	20,106	3,486	16,059	16,123
Coaching Vehicles	55,676	5,599	50,077	49,502
Freight wagons	1,162,327	102,684	1,059,643	1,073,084

3. INLAND WATERWAYS

Tonnage of traffic and ton-miles

	Tonnage	Per cent.	Ton-miles	Per cent.
General merchandise	280,000	(+2.71)	4,809,000	(-3.98)
Liquids in bulk	145,000	(+5.80)	3,049,000	(+6.91)
Coal, coke, patent fuel & peat	408,000	(+2.21)	5,696,000	(+2.23)
Total	833,000	(+2.99)	13,554,000	(+0.91)

4. LONDON TRANSPORT

(A) Passenger Journeys Originating

	Number	Per cent.
Railways	49,547,000	(-0.95)
Buses and coaches	214,065,000	(+0.79)
Trams and trolleybuses	93,462,000	(-1.54)
Total	357,074,000	(-0.07)

(B) Rail and Road Car Miles

	Miles	Per cent.
Railways	17,577,000	(+4.28)
Buses and coaches	24,205,000	(+3.44)
Trams and trolleybuses	8,636,000	(-0.39)
Total	50,418,000	(+3.05)

Staff & Labour Matters

Wages Claim

The N.U.R. wage claim negotiations reached a critical stage last week, as a result of the decision of the special delegate conference of the N.U.R. to reject the latest Railway Executive offer, and to call on its members to work strictly to rule from midnight on Sunday, July 3, to cease working any tonnage bonus or piecework schemes, and to work only the 44-hr. week until the union's demands were met.

On Wednesday, June 29, leaders of the N.U.R. were called to the Ministry of Labour, where they discussed the position for two hours with Sir Robert Gould, Chief Industrial Commissioner. Next day the matter was discussed at a meeting between representatives of the Railway Executive, the N.U.R., A.S.L.E. & F., R.C.A., and the employees' side of the Railway Shopmen's National Council. At this meeting no progress was made towards a solution of the deadlock, as the Railway Executive stated it was unable to go beyond the offer which it had already made to the unions. After the meeting the following official statement was made by the Railway Executive:—

"At this afternoon's meeting with the trade unions on the wages question, the Railway Executive urged the N.U.R. to consider the grave consequences before issuing instructions to their members to cease working any tonnage bonus or piece-work schemes, and to work strictly to rule and the 44-hr. week, as from Sunday midnight, July 3-4. It was made clear at the meeting that the A.S.L.E. & F., R.C.A., and Railway Shopmen's National Council would instruct their members to continue to work normally and would not support the N.U.R."

"The N.U.R. representatives stated they would consider the position with their Executive Committee as a result of this meeting. As regards the effect on railway services of the N.U.R. action, if it were taken, the Railway Executive points out that, while it is difficult to forecast the detailed effect of such action, it must nevertheless be widespread and considerable. The main effects are likely to be:—

"(1) Usual passenger services may be delayed, and, in some cases, cancelled, though every effort will be made to minimise disturbance.

"(2) Apart from efforts to maintain the best possible passenger service, there will be concentration on conveyance of priority commodities such as essential foodstuffs, perishables, export traffic including coal, and also supplies for public utility and essential services, raw materials for steel works, etc.

"The Railway Executive will use every effort both to maintain the best possible services and to keep the travelling and trading public fully informed in regard to them."

On being questioned in the House of Commons on Thursday, Mr. George Isaacs, Minister of Labour, asked to be excused from making any fuller statement on the situation which might prejudice the discussions taking place that afternoon at Railway Executive headquarters with the unions. He went on to say: "I am sure the House will join with me in hoping that wiser counsels will prevail and that the country will be spared the disturbance and dislocation of trade that must follow any widespread adoption of go-slow policy among members of the N.U.R."

On the same night the four members of the Labour Independent Group tabled in

the House of Commons the following motion:—

"That this House, recognising the justice of the railwaymen's claim for an increase of 10s. a week, calls on the Government to introduce legislation to reduce the compensation payable to the former railway shareholders so as to make it easier for the Railway Executive to grant this claim."

The motion was signed by Mr. D. N. Pritt, Mr. J. F. Platts-Mills, Mr. L. Solley, and Mr. K. Ziliacus.

After the meeting with the Railway Executive on June 30, the N.U.R. leaders went to see Sir Robert Gould at the Ministry of Labour, where they had discussions which lasted until a late hour. The N.U.R. representatives then returned to their headquarters to report the result of the talks to the executive committee of the union. This meeting continued until the early hours of Friday morning and was resumed again at 10 a.m. on the same day.

The result of these last-minute efforts on the part of the Ministry of Labour to avert a national crisis was a decision by the N.U.R. to suspend the work-to-rule or go-slow policy which was to have operated from Sunday midnight. The news of the change of front was announced by Mr. Isaacs in the House of Commons on the afternoon of July 1. Mr. Isaacs stated:—

"In discussion on Wednesday night, representatives of the executive of the N.U.R. informed officers of my Department that the decision of the special delegate conference of the previous day was not intended to break off negotiations with the Railway Executive, and, further, that the executive of the union would be able to suspend the decision if it felt in certain circumstances that that course was justified, having regard to the views of its members."

"At a further discussion last night, following the deadlock in the negotiations between the Railway Executive and the unions, it was pointed out on my behalf to the representatives of the executive of the N.U.R. that that part of the resolution that required the operation of the decision as from midnight, July 3-4, constituted an immediate threat of action, and while it remained I could not consider lending the services of my Department to assist the parties in reaching a mutually satisfactory settlement."

"I have now received from the executive of the N.U.R. the following resolution:—

"That, having heard the report of our representatives who attended the meeting with representatives of the Minister of Labour, we decided to suspend the decision of the special general meeting of June 28 to facilitate consideration by the Minister of the present situation."

"The General Secretary is to inform Sir Robert Gould of our decision, and that, since no terms of reference can be agreed by us for submission of our claims to the Railway Staff National Tribunal, we express the hope that the Minister will find himself able to take very early action to assist in resolving the dispute."

"Further, every effort is to be made by this executive committee, to secure an early settlement, and a formal report is to be given to the annual general meeting on July 4."

Mr. Isaacs went on to say:

"In the circumstances I have consulted the Railway Executive, and the other unions, and also Sir John Forster, Chairman of the Railway Staff National Tribunal, as to the constitutional procedure provided for under the agreements in the industry. It is now clear that there is no provision in the agreements that compels the parties to arbitration, and both the Railway Executive and the N.U.R. consider that the machinery has now been exhausted. Accordingly, I have come to the conclusion that there is no constitutional obstacle to my intervention in the present dispute, and I am sure the House will wish me to use to the full the powers that Parliament has given me to enable me to take such action as seems necessary and desirable to assist the parties towards a settlement."

On Friday evening, July 1, the N.U.R. sent out telegrams to all its branches advising members that the decision of the special delegate meeting to work to rule had been suspended indefinitely by the union executive, and instructing the men to continue normal working.

In some quarters it is suggested that a Court of Inquiry will probably be set up to go into the whole question of rates of pay and conditions of service on the railways. The last Court of Inquiry on the railways sat in June, 1947, in connection with the wage claim of £1 a week to which the whole of the railway unions were parties, and also for a reduced working week and certain improved conditions of service. The court recommended an increase of 7s. 6d. a week for wages staff (or £1 10s. a year for salaried staff), and a reduction of standard hours to 44 a week for salaried staff (other than clerical), conciliation staff, and workshop staff, and 42 a week for clerical staff.

In its report the court made certain general observations on the wage structure of railway staff as a whole. The recommendations of the court were accepted by all parties, and the increase in wages and the reduction in hours became effective from June 30, 1947.

Discussions took place with the unions regarding the observations of the court on the general wage structure, as a result of which, as from February 1, 1948, in final settlement of the findings of the court, increases in rates of pay varying from 6d. to 8s. 6d. a week, in addition to the flat-rate advance of 7s. 6d. a week, were granted to all grades above the starting grades. The N.U.R. claim for a flat-rate increase of 12s. 6d. a week, which was declined by the Railway Staff National Tribunal on March 18, 1949, was submitted in August, 1948, only six months after the agreements arising from the Court of Inquiry had been completed.

Representatives of the Railway Executive, the N.U.R., A.S.L.E. & F., R.C.A., and the Confederation of Shipbuilding and Engineering Unions met at the Ministry of Labour on Tuesday, July 5. Mr. J. B. Figgins, General Secretary of the N.U.R., and Mr. W. T. Potter, N.U.R. President, travelled to London from the N.U.R. conference at Brighton.

An official statement by the Ministry described the meeting as "exploratory" and for the purpose of enabling the Minister to ascertain the views of all parties regarding the present situation. A further meeting was arranged for today (July 8).

The action of the N.U.R. executive committee in calling off the "go-slow" tactics was unanimously approved by the N.U.R. conference on its opening day. Despite instructions from their union, staff at one or two depots ignored these orders, and decided to work to rule, but in general, normal working was maintained.

N.U.R. Annual Conference

In his presidential address at the opening of the N.U.R. conference at Brighton on July 4, Mr. W. T. Potter said:—

"During these very hard and difficult days the need for one union for all railwaymen has been more pronounced than ever. We have witnessed the unfortunate spectacle of other railway trade unions being opposed to the claim you had instructed your executive committee to submit, and thus have displayed disunity before the Railway Executive and other bodies; yet, whatever benefits have been, or are to be, derived from the application we made, these benefits will be shared by all employees."

"May I express the hope that from the experiences gained over the last 18 months our comrades will very soon appreciate the wisdom of one union for all railwaymen. I would go farther and say that the time has arrived when the whole trade union movement should examine its structure, particularly in relation to the nationalised industries, shed itself of outworn conceptions of organisation, and so enable trade unionism to meet the changed circumstances as they exist today.

"Prone as we are to criticise the new dispensation, we must also look at what has been accomplished in a very short period of time, and give the lie to propaganda which claims that the industry is worse off today than under the old regime. We know only too well that the slightest upheaval in the railway world is manufactured by our opponents into an outburst against nationalisation, and we can definitely claim that railwaymen are a loyal body of workers always prepared to serve the public.

"Never in our history was so much made of an unofficial stoppage as we have just witnessed in regard to lodging of trainmen, and it would be difficult to recall a time when so much misrepresentation of our case was made by the capitalist press. Even our good friend Mr. George Isaacs was not disposed to leave us alone in the House of Commons. We cannot give blessing to these unofficial stoppages, and I would counsel the membership of this great and democratic organisation to keep firmly in mind that the representatives elected by the members must be the authority and no body of members should ever attempt to usurp their powers."

London Transport Wage Claim

The London Transport Executive has received the following letter from the N.U.R.:—

"I am writing to tell you of the decision reached by the special general meeting of delegates held today, June 28. This decision, which was carried by an overwhelming majority, was made by the delegates who had been mandated as a result of special meetings convened on Sunday to consider that there was no offer from the London Transport Executive. The decision reads as follows:—

"That, having heard the report of the General Secretary, and having given consideration to the offers made by the various Executives, this special general meeting rejects such offers as being totally inadequate. We therefore decide to instruct the General Secretary and the National Executive Committee to inform the Executives concerned, and also the Minister of Labour, that all our members will be called on to cease working any tonnage, bonus, or piecework schemes, and to work strictly to rule and the 44-hr. week until such time as our just demands are met, as from Sunday midnight, July 3-4, 1949."

This means that the N.U.R. has decided not to honour the agreement of February 25, 1948, to which it is a free and consenting party. This agreement provides that:—

"Applications made by the unions (N.U.R., A.S.L.E. & F., and R.C.A.) and/or by the London Transport Executive for the making, or revision, of agreements and regulations governing the rates of pay, hours of duty, and other conditions of service of the employees of the London Transport Executive to whom Part IV of the L.P.T. Act, 1933, applies, shall be considered by the negotiating committee.

"In the event of the negotiating committee being unable to reach agreement, the question at issue shall, at the instance of

the London Transport Executive or the unions, be referred to the Wages Board, it being understood that representatives of any one of the unions shall be entitled to require such a question to be so referred."

The N.U.R. refuse to use this agreed negotiating machinery. This refusal, states the London Transport Executive, "strikes at the roots of good faith and the honourable observance of agreements freely entered into. The whole basis of collective bargaining, built up over many years, is destroyed if one party claims the right to ignore the agreed methods of arbitration.

"London Transport is a public service, and, when arbitration machinery exists, no section of its staff is entitled to seek their ends by inflicting hardship and inconvenience on the public whom it is their duty to serve. The effect of such action on the esteem of the public and the consequences of such action to the staff themselves must be apparent to all concerned."

The following statement on the N.U.R. claim has also been issued by the London Transport Executive:—

"The N.U.R. dispute with the London Transport Executive concerns that union's claim for a substantial flat-rate wage increase 'o' its members in the employ of the Executive. The Executive is unable to concede the claim for a flat-rate wage increase. The higher grades of these staffs are well paid and earn good money.

"The maximum standard rate for a motorman is £7 a week and a motorman's average earnings are £8 8s. 10d. a week. The average standard rate for representative traffic and maintenance grades is £5 13s. 9d. Average earnings are £7 6s. 1d. a week. The London Transport Executive has offered to increase the wage rates of certain of the lower-rated grades.

"Porters, of whom 1,230 are employed, start at a rate of 97s. a week, to be increased to 100s. per week. The average earnings of male porters for the week ended June 4, 1949, were £6 1s. 6d.

"Lengthmen and relayers (permanent way), of whom 1,428 are employed, and carriage cleaners (613 employed), have a standard rate of 100s. 6d. a week, to be increased to 103s. a week. The average earnings of lengthmen and relayers for the week ended June 4, 1949, were £7 11s. 9d. per week, and for male carriage cleaners £6 16s. 10d. a week.

"Labourers (signals), of whom 473 are employed, have a standard rate of 99s. a week, to be raised to 103s. a week. The average earnings of signal labourers for the week ended June 4, 1949, were £6 5s. 2d.

"There are certain other grades where marginal adjustments would fall to be negotiated with the unions. The N.U.R. rejected this offer by the London Transport Executive and also the proposal to pay these wage increases forthwith.

"The London Transport Executive has, during 1947 and 1948, made labour agreements with the three railway unions resulting in additional wages in excess of £1,000,000 a year affecting some 25,000 workers.

"In view of the deadlock on the demand for a flat-rate wage increase the London Transport Executive proposed that the assistance of the Chief Industrial Commissioner of the Ministry of Labour be sought for the purpose of seeking a way out. The N.U.R. rejected this proposal and also the proposal by the Executive to refer the dispute to the agreed machinery of the Wages Board.

"The London Transport Executive undertook to consider any proposal by the

N.U.R. whereby the parties could seek and obtain the assistance of a third party to resolve the dispute. The N.U.R. refused to make or consider any proposal to this end."

Parliamentary Notes

Mersey Tunnel Bill

The Mersey Tunnel Bill was read the third time and passed in the House of Commons on June 27.

Railway "Tavern Cars"

Mr. T. Dribberg (Maldon—Lab.) on June 27, on the motion for the adjournment of the House of Commons, raised the question of the design of railway buffet cars, and criticised the new "tavern cars," which he described as "embellished and adorned in mock Tudor style." He said he had written to Lord Inman, Chairman of the Hotels Executive, who, in the course of his reply, had said: "I think I should make it clear that any criticism or any praise cannot be directed to this Executive, as these particular cars were designed and initiated before we were constituted"; and had added: "I do feel, however, that you are unduly severe in your criticism. We are constantly being asked for new and progressive ideas, and these cars are clearly in the nature of an experiment. It may be that in the light of experience alterations will have to be made."

Mr. Dribberg felt bound to say there were at least two things about the experiment to praise. The first was the general lay-out and idea of the cars. He was not surprised to hear they had been popular, but he thought they would have been equally so, for what they were, whatever the style of decoration. The second was that they were not "tied" cars. They could get a variety of drinks on them, including even draught beer. Incidentally, the arrangements behind the bar were excellent; there was no trace of Tudor whimsy there, and all was purely functional.

Although the windows, absurdly enough, had to be lattice windows, he did not see why they should be so high that one could not see the scenery at all. That was also characteristic of the newest style of dining car.

Mr. Dribberg, continuing, said that public ownership offered the greatest opportunity since the days of aristocratic patronage for inspiring a real renaissance of the public taste. We had talented industrial designers; yet he thought it was fair to say that the idea of industrial design was still more acceptable to industry in the United States than here. What were needed were a consistent design policy for the nationalised industries, and that design research should be up-graded to the level of technical and marketing research. Apart from this momentary aberration, transport had led the way in this country in modern design. They could be proud of what had been done by London Transport over many years, especially in contrast with transport in Paris or New York. He concluded with quotations from a book by Mr. Christian Barman, now Publicity Officer to the British Transport Commission, as follows:—

"Nowhere have these opportunities been more clearly apprehended and more skilfully utilised than in the transport undertakings in the London region that in the interval between the two wars came under the inspired management of the late Frank Pick. It has been truly said that only two other men, Sir Christopher Wren and John Nash, have made a contribution to the physical aspect of London comparable to that which we owe to these undertakings. Through their buildings, rolling

stock and equipment generally, as well as through their posters and many other forms of publicity, they have made an impact which is not only physical but something having the quality of a moral force. . . .

"There is no reason why the part played by public transport in our visual education should be confined to London. . . . A large part of our transport equipment is either worn out or obsolete, and much of it must of necessity be renewed as soon as labour and materials can be spared for this purpose. Our new stations and other buildings, our new roadside transport furniture, our new locomotives and vehicles will be the best in the world if we set about this business properly. They will be the best, not because it is our wish that other nations should admire us and envy us, but because we know that a first-class environment makes the kind of people we intend to be."

A shoddy Tudoresque monstrosity, said Mr. Driburg, was not a first class environment.

Mr. T. C. Skeffington-Lodge (Bedford-Lab.) trusted that the design would be scrapped and that they could have in its place something genuinely appealing. The House had not been told whether the Council for Industrial Design had been consulted before the present step had been taken.

Mr. James Callaghan (Parliamentary Secretary, Ministry of Transport) said that the deluge of adverse expert opinion had, in fact, been very good for business. The use to which the cars had been put had exceeded the wildest expectations for revenue of the Railway Executive. The fact seemed to be that nobody liked the "tavern cars" except the public, which had found them well laid out inside, with many conveniences for the smaller kinds of meal. Another creditable feature was the excellent accommodation for the staff.

The Minister was not responsible for the design or types of carriages. He was, however, interested in such bodies as the Council for Industrial Design and the Royal Fine Art Commission having the opportunity of making their views known to the British Transport Commission. They had not been consulted about these particular cars. He would not be expected to give an assurance that they should have the last word on matters of design so far as the railways were concerned; indeed, he thought they would find that the Transport Commission would be able to give lessons to many bodies in the field of railway design, and that its staff, designers and machinery were such as would enable it to take up the challenge of Mr. Driburg. Here was an opportunity for a nationalised industry to lead in public taste, and he could say, on behalf of the Commission, that he was certain it would want to take up that challenge.

There had been a lot of exaggerated language about the cars used by people who had not been within half-a-mile of them. He did not think there was anything exceptionally bad or good about them; they were nondescript. If they had been tenth-rate coaches in chromium and glass they would probably have passed and nothing would have been heard about them.

Mr. Callaghan wanted to say publicly what had been said privately to the Railway Executive by the Minister, that it should not be deterred by the tremendous volume of criticism from going ahead with experiments in design. The designer of the new double-deck coach which was to appear in south-east London in the autumn had imagination and enterprise, and had done good service, and they would not like to think that what had happened in this case would make the Railway Executive timid again.

Notes and News

Axes for Pakistan.—The High Commissioner for Pakistan invites tenders for the supply of axles. See Official Notices on page 55.

Tyne Improvement Commission.—Tenders are invited by the Tyne Improvement Commissioners from firms experienced in railway signalling for the renewal of dock railway signals. See Official Notices on page 55.

Krupps Plant for South Africa.—An agency report from Düsseldorf states that the construction halls of Krupps, Essen, in which long-barrel cannons were produced during the war, will not be dismantled to be scrapped but have been sold to South Africa where they will be used as locomotive repairing shops.

Train Collision at Chester.—On July 4 five of the railway staff and 28 passengers were slightly injured when the 7.20 a.m. Derby to Llandudno train ran into the rear of the 9.20 a.m. Crewe to Holyhead train at Chester Station. The rear coach of the Crewe to Holyhead train, which was stationary at the platform, was damaged and windows were broken, and the second and third coaches of the Derby train became locked together.

Road Haulage Association Areas.—As a result of negotiations between the Metropolitan Area and the South Eastern Area of the Road Haulage Association it has been agreed to amalgamate these two areas under the title of the Metropolitan & South Eastern Area as from July 1. This amalgamation covers an area nearly in line with the South Eastern Division of the R.H.A. and will result in simplification of liaison under the new machinery.

Resumed Folkestone-Flushing Service.—For the first time since the war a Folkestone-Flushing service to the Continent is operating twice weekly in each direction as from today (July 8). The 3,000-ton vessel *Mecklenburg*, of the Zeeland Steamship Company, will be used on this route. The service operates outwards on Wednesdays and Saturdays, leaving Folkestone Harbour at 12.20 p.m., due Flushing at 6.40 p.m., and inwards the vessel leaves Flushing on Tuesdays and Fridays at 11.30 a.m., due Folkestone Harbour at 6.0 p.m. Accompanied motor-cars are accepted for conveyance.

Excursions to France.—During its first week of operation, British Railways excursion service between Folkestone and Boulogne by the new steamer, *Maid of Orleans*, has carried the following number of passengers: 58, June 27; 29, June 28; 57, June 29; 31, June 30. On Monday, July 4, there were 43 passengers and on July 5, 52. A number of prospective passengers has been turned down, because they were without passports. An article on the *Maid of Orleans* and an account of the inaugural luncheon, at which Mr. R. P. Biddle, Docks & Marine Manager, Southern Region, British Railways, was present, appeared in our July 1 issue.

New Frame in Birmingham Signalbox.—A new lever frame, with 154 levers, was installed in 96 hours recently at Birmingham New Street No. 5 Signalbox. This was accomplished with little delay to traffic, although the signalbox, which is situated at the north end of New Street Station, controls all traffic on the lines to and from Wolverhampton and Gloucester and a large number of shunting movements. During the changeover period block working was maintained by signalmen housed temporarily in a room on one

of the platforms. The new frame, built at Crewe, is of similar design and size to the old L.N.W.R. type which has been removed, but has tappet locking actuated by catch handles. Because of narrowness of the signalbox the standard L.M.S.R. type of frame could not be installed. To facilitate the changeover, the new frame, without the levers, was erected in the well of the signalbox beforehand and rolled into position after the old frame had been demolished.

L.M.R. Dramatic Society.—The next production by the revived L.M.R. Dramatic Society will be "The Blue Goose," a comedy in three acts by Peter Blackmore; it will be staged at the Rudolph Steiner Theatre, Baker Street, London, from November 3 to 5. Full particulars of membership to the society are obtainable from the Honorary Secretary, Mr. J. L. N. Ogden, Electrical Accounts Office, Carlow Street, Euston.

Closing of Dumfries and Moniaive Branch Railway.—On July 4 the Moniaive Branch, Scottish Region, was closed. Truck load consignments are now conveyed by rail to or from the appropriate railhead—Dumfries, Auldgirth, or Thornhill—and between the railhead and the sender's or consignee's premises by vehicles of the Road Haulage Executive. Freight train traffic in less than truck load consignments and parcels and miscellaneous traffic are conveyed by rail to or from Dumfries and then by road.

British Railways Pier on Windermere.—A new reinforced concrete pier has just been completed for the London Midland Region of British Railways at Bowness on Windermere ready for the summer holiday traffic. This new pier, which is 162 ft. long by 24 ft. wide, consists of a reinforced concrete deck supported on three rows of precast concrete piles driven vertically into the lake bed and arranged to clear the positions of existing timber piles and girders. The work was carried out by Leonard Fairclough Limited to the design of, and under the supervision of, Mr. J. Briggs, Civil Engineer, London Midland Region, British Railways.

Seventeenth Engineering & Marine Exhibition.—This biennial exhibition is to be held this year at Olympia, London, from August 25 to September 10, when buyers from all parts of the world will have an opportunity of seeing what is claimed to be the largest periodical display of engineering equipment in the world today. The exhibition was first held in 1906, and has taken place regularly in alternate years since, with the exception of the war years. Exhibits will cover a very wide range of engineering products, and this year an outstanding section will be devoted to internal combustion engines, including diesel engines for industrial, marine, and rail traction use. There will also be a special welding section. Aircraft and automobiles will not be shown.

Institute of Traffic Administration Officers Elected.—At the annual general meeting of the Institute of Traffic Administration, held at Leicester on June 25, the following officers were elected: Sir Herbert Matthews, President; Messrs. E. P. Puttick, J. A. Dunnage, and R. P. Bowyer, Vice-Presidents; Mr. A. Lawes Cole, Chairman of the National Council; Messrs. L. C. Harrison, A. W. Fielder, H. Bryce, and L. S. Dyson, Vice-Chairmen of the National Council; Mr. C. R. Griffiths, Honorary Secretary, and Mr. A. W. Fielder, Honorary Treasurer. Mr. R. P.

THE RAILWAY GAZETTE

OFFICIAL NOTICES

None of the vacancies on this page relates to a man between the ages of 18 and 50, inclusive, or a woman between the ages of 18 and 40, inclusive, unless he, or she, is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

LONDON Civil Engineer's Drawing Office. Required, Quantity Surveyor, age not less than 30 years, capable of writing specifications, mainly for Civil Engineering works, but including some Architectural items. Salary 12-15 gns. per week.—Box 381, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

LONDON Civil Engineer's Drawing Office. Required, Designer Draughtsman, age not less than 30 years, capable of undertaking calculation in reinforced concrete and steel frames, also in respect of general constructions. Knowledge of Engineer's quantities. Possibility taking charge small group draughtsmen. Salary 12-15 gns. per week.—Box 382, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

4-8-2 CLASS "15F" LOCOMOTIVE FOR THE SOUTH AFRICAN RAILWAYS. The latest examples of these main-line passenger and freight locomotives have been built by the North British Locomotive Co. Ltd. Reprinted from *The Railway Gazette* of September 20, 1946. Price 2s. By post 2s. 2d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

Bowyer, the retiring Chairman, urged all members to make known the aims of the Institute, which was doing so much to encourage the exchange of ideas and foster a better spirit in the industry. Reviewing the past year's work, Mr. Bowyer reported continuing progress in all parts of the country, as well as overseas, where the Institute now had members in Africa, India, Ceylon, Malaya, and Germany.

Former Railway-Owned Canals.—We have been advised officially of the transfer on May 23 from the Railway Executive to the Docks & Inland Waterways Executive of control of the following former railway-owned canals; they have been assigned to the divisions indicated:—

Canal	Division
Monmouthshire & Brecon	Chief Docks Manager, South Wales Docks.
Canal	South Wales Docks.
Pocklington Canal	North-Eastern Division.
Ripon Canal & River Ure	North-Eastern Division.
Navigation	
Stratford-on-Avon Canal...	South-Western Division.
Swansesa Canal	Chief Docks Manager, South Wales Docks.

Radio-Telephone Installation at Fleetwood.—The London Midland Region of British Railways has recently had installed at the Port of Fleetwood a radio-telephony set for providing ship-to-shore communication with the Isle of Man Steam Packet Company vessels operating on the Fleetwood-Douglas summer service. The installation renders possible, under all weather conditions, transmission of docking instructions and information as to weather, visibility, and so forth, to the vessels while *en route*. The apparatus is a Marconi Seaphone very high frequency radio-telephony set rented from the Marconi International Marine Communication Co. Ltd. The same type of set is installed in the vessels of the Isle of Man Steam Packet Company fleet and in the Douglas Harbour Master's Office.

Ribble Motor Services.—During the past year the company showed a record gross revenue of £3,649,000 and no less than 198,000,000 passengers were carried. Profit showed a decrease due to increased expenses. At the annual meeting on July 6, Mr. R. P. Beddow, Chairman, said that in spite of heavily increased costs, the company was still operating at substantially the same fares as were in force before the last war, and fares equivalent to those in force during the first world war. While the industry remained on its present basis,

Tyne Improvement Commission

TENDERS FOR RENEWAL OF DOCK RAILWAY SIGNALS

THE Tyne Improvement Commissioners invite tenders from firms experienced in railway signalling, for renewing the works of the lower-quadrant semaphore signals associated with five signal boxes at the Commissioners' Albert Edward and Northumberland Docks, Percy Main, North Shields, Northumberland, as follows:—Tender "A," with two-aspect colour-light signals and, alternatively, Tender "B," with upper-quadrant semaphore signals. The work includes electrical and mechanical wiring, underground multi-core cabling between signal boxes and signals and an underground ring main to supply the signal boxes from an existing substation. The existing lever frames and interlocking gear are to be retained for further use. The forms of tender, instructions to persons tendering, conditions of contract, specifications, bills of quantities and drawings may be obtained on application to the undersigned, on payment of a deposit of 5 guineas, which sum will be returned on receipt of a *bona fide* tender. Tenders in sealed envelopes endorsed "Tender for Signalling" and addressed to the Chairman, Docks & Trade Committee, Tyne Improvement Commission, Bewick Street, Newcastle-upon-Tyne, 1, must be delivered to the undersigned not later than noon on Tuesday, August 23, 1949. The Commissioners do not bind themselves to accept the lowest or any tender. J. K. MCKENDRICK, Secretary, Tyne Improvement Commission, Bewick Street, Newcastle-upon-Tyne, 1, July 1, 1949.

the public could be assured that, should fare increases become necessary, the only increases which it might have to face would be increases due to increased costs in their very efficient industry. Were they to be nationalised, however, the position might be very different. The public would be well advised to watch with great care any schemes for the nationalisation of passenger road transport, and to take all possible steps to insist on a clear answer as to how any such scheme would be to the public benefit.

Restaurant Car Facilities on Skye and Inverness Trains.—On July 1 a restaurant car service was introduced on the 10.30 a.m. train from Inverness to Kyle of Lochalsh as far as Achnasheen and from Achnasheen to Inverness on the 10.45 a.m. train from Kyle of Lochalsh. This service will continue during the summer.

Southdown Motor Services Limited.—The net profit for 1948 amounted to £479,511, which, with the balance of £136,711 brought forward from 1947, makes a total of £616,222. After transferring £282,543 to general reserve a balance of £333,679 is left. A dividend

DESIGNER-DRAUGHTSMAN required for London Office for work on industrial-type Diesel-Electric Locomotives. Man with experience of steam locomotive design would be suitable. Applications from retired draughtsmen willing to work on a whole- or part-time basis will be considered.—CLAYTON EQUIPMENT CO. LTD., 138, Borough High Street, London, S.E.1.

THE High Commissioner for Pakistan invites tenders for the supply of 2,690 Axles with 10-in. x 5-in. journal and 4-in. centres. Forms of tender, which are returnable by August 5, 1949, may be obtained from the Supply Commissioner, 39/40, Lowndes Square, London, S.W.1, upon payment of a fee of 5s. per set (not returnable). The reference No. SD. 5056 should be quoted on all applications for tender forms.

RAILWAY STORE METHODS. By W. H. Jarvis. Great Western Railway. The necessity for training officers—Organisation of stores department—Stores accounts. Cloth 7½ in. by 5 in. 116 pp. With diagrams. 4s. By post 4s. 3d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

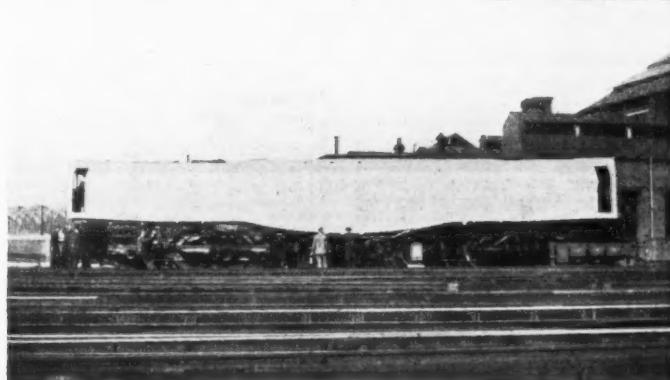
RAILWAY AMALGAMATION IN GREAT BRITAIN. By W. E. Simnett. An authoritative account of the course of railway amalgamation in Great Britain up to the end of 1923. Cloth 8½ in. by 5½ in. 276 pp. 15s. By post 15s. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

of 20 per cent. for the year, less income tax, accounts for £82,500, and a bonus of 5 per cent., less tax, accounts for £20,625. A balance of £230,554 is carried forward.

Reserved Seats on London Midland Region Expresses.—The London Midland Region of British Railways has now added the 11.15 a.m. Euston to North Wales express to the list of trains on which seats may be reserved. This increases to 102 the total number of trains on the Region on which seats can be booked.

Summer Transport Services in Ulster.—Special trains which will effect a reduction of up to 45 minutes on the journey between Londonderry and Belfast, together with the introduction of fast buses to save time on certain routes, are features of the new summer services introduced by the Ulster Transport Authority on July 4. For the convenience of passengers residing away from the main touring centres, arrangements have been made to issue them with throughout tickets, enabling them to proceed or return from the tour by scheduled train or bus service or join it *en route*. In conjunction with British Railways there

Southern Region "Leader" Locomotive



"Leader" class twelve-wheel tank locomotive, referred to in our November 19, 1948, issue, outside Brighton works

Photo

[H. M. Madgwick]

will be a revival of the afternoon cruises from Larne Harbour which were so popular before the war.

Retail Prices Index.—At May 17 last the official index figure, which measures changes in the average level of retail prices compared with the level at the base date, June 17, 1947 (taken as 100), was 111, compared with 109 on April 12.

Hackbridge & Hewittic.—The consolidated profit of the company for the twelve months ended March 31 last amounted to £166,560 before tax provision of £92,250. A final ordinary dividend of 8½ per cent. makes 12½ per cent. for the year as compared with 12 per cent. a year ago. It is proposed to increase the authorised capital from £800,000 to £1,700,000 by the creation of 1,200,000 ordinary shares of 5s. each of which the directors propose to issue at a later date 200,000 ordinary shares to existing stockholders in the proportion of one to nine at par.

Silicone Rubber Supplies.—During the past few years, there have been various references in the technical press to Silicone rubber, particularly as regards its ability to retain its elasticity at temperatures above or below normal. For two years the firm of Richard Klinger Limited, Sidcup, Kent, has been experimenting in the extruding and moulding of various grades of Silastic rubber marketed in this country in the unprocessed state by Albright & Wilson Limited, and the firm is now in a position to execute orders for this class of work. The grades mainly used are Silastic 160, Silastic 161, and Silastic 181, which can be supplied in the form of sheets, mouldings, or extrusions.

Uniform System of Accountancy for European Railways Advocated.—A group of experts meeting in Geneva on June 20, 21, and 23 has agreed on the desirability of setting-up a uniform system of accountancy for European Railways. The group was set up by the Inland Transport Committee of the United Nations Economic Commission for Europe. Experts from Austria, Belgium, France, Italy, Netherlands, Norway, Poland, Sweden, Switzerland, the U.S.A. and the occupation authorities in Germany took part in the discussion. The setting-up of a uniform system of accountancy for European railway systems will be an important step towards co-ordinating transport in Europe as it will make it possible to compare their results accurately of the various railway systems.

Forthcoming Meetings

July 9 (Sat).—British Railways (Southern Region) Lecture & Debating Society. Visit to Heathrow Airport.

July 13 (Wed).—Institute of Welding, at the Institution of Civil Engineers, Great George Street, London, S.W.1, at 2.30 p.m. Annual general meeting.

July 16 (Sat).—Permanent Way Institution, London Section. Visit to London Airport, at 2.30 p.m.

July 16 (Sat).—Permanent Way Institution, Manchester & Liverpool Section. Visit to York railway museum, assembling at small exhibits museum at 2.30 p.m.

July 23 (Sat).—British Railways (Southern Region) Lecture & Debating Society. Visit to Surrey Iron Railway.

July 23 (Sat).—Permanent Way Institution, London Section. Visit to London Airport, at 2.30 p.m.

Railway Stock Market

Stock markets were helped by the outcome of the Paris talks, and, with a cessation of the selling in evidence in recent weeks, British Funds and industrial shares regained part of the big falls of last month, though there were few investment buyers. Attention has centred on the speech by Sir Stafford Cripps on the significance of the heavy gold and dollar losses experienced in the past three months. In a large measure markets may have discounted the position very fully by the heavy fall in values shown in recent weeks. It may be some time, however, before there is a return of confidence on the part of investors, and for the time being values in most sections may tend to continue to move sharply on moderate buying or selling, though the behaviour of Gilt-edged stocks may well determine the general trend.

At the time of writing 3 per cent. Transport (1978-88) has rallied moderately to 96½ and is now a point above 3 per cent. Gas stock. This margin is justified because Gas stock is the longer dated. On the other hand, there has been a good deal of selling of Gas stock, and any further fall in price would affect all the nationalisation and long-dated stocks. According to some views, the authorities might decide to support the gilt-edged market in the event of any further heavy fall, but there is little on which to base suppositions of this kind. Only a few weeks ago it was being suggested that the Gilt-edged market would probably be supported if Gas stock fell below par.

There was only moderate activity in foreign rails, and Brazil rails eased in the absence of demand, although it continues to be assumed that current prices are below eventual pay-out levels. There are still, however, divergent views as to the pay-out levels of Leopoldina ordinary and preference, and it is contended that events are likely to prove that either the ordinary or preference are undervalued at current market prices. Leopoldina ordinary was 8½, and the preference 30, while the 4 per cent. and 6½ per cent. debentures were 92 and 135½. Leopoldina Terminal shares were 3s. 6d. and the 5 per cent. debentures fell below par.

110½. San Paulo ordinary stock was back to 121. Great Western of Brazil were easier at 139s. A rally in Canadian Pacifics to 16½ was attributed to "bear" covering. The preference stock was 56 and the 4 per cent. debentures changed hands around par. United of Havana 1906 debentures were 8½, and Antofagasta ordinary became steeper at 6½, with the preference stock at 50½. Beira Rail bearer shares were steady at 50s. 6d. Manila "A" debentures were 92 and the preference shares 7s.

After another heavy fall British Electric Traction deferred stock rallied strongly to £1.510, and there was a steeper tendency in shares of road transport and bus companies, with Lancashire United improving to 85s., and West Riding to 79s. Shares of road transport companies continue to be held firmly, but, with markets generally uncertain, prices tend to be marked down sharply on any small selling. Meanwhile the tendency is to await the full report and annual meeting of British Electric Traction for Mr. Drayton to give his views on the outlook and the question of voluntary or compulsory acquisition of the transport interests by British Transport.

Iron and steel shares have again participated in the better trend of markets. Dorman Long, United Steel, Colvilles, Thomas & Baldwins, and Hadfields improved on the view that nationalisation may not be effected after all. Guest Keen also improved and elsewhere Babcock & Wilcox at 59s. 6d. have regained part of the fall which followed the new issue news. There are conflicting opinions in regard to iron and steels. In some quarters it is pointed out that, even if there is no nationalisation the industry would suffer if there were any serious trade recession, and that it might not be possible to maintain dividends. This is an extreme view. On the other hand it is realised that if nationalisation were effected, shares of companies on the nationalisation list would be undervalued at below their official take-over levels. Among shares of locomotive builders and engineers, Beyer Peacock were 17s. 6d., Vulcan Foundry 16s. 6d., North British Locomotive 18s., Gloucester Wagon 41s. 9d. and Wagon Repairs 19s. 1½d.

Traffic Table of Overseas and Foreign Railways

Railways	Miles open	Week ended	Traffics for week		No. of week	Aggregate traffics to date	
			Total this year	Inc. or dec. compared with 1947/48		1948/49	Increase or decrease
South & Central America			£	£		£	£
Antofagasta...	811	26.6.49	79,050	+ 27,960	25	1,688,210	+ 342,990
Costa Rica ...	281	Apr., 1949	35,603	+ 17,224	43	357,292	+ 46,562
Dorada ...	70	May, 1949	28,732	- 2,268	21	149,043	+ 43,343
G.W. of Brazil	1,083	21.5.49	19,200	- 10,600	20	755,800	+ 1,200
Inter. Ctl. Amer.	794	May, 1949	\$1,091,941	- \$92,628	22	\$5,448,628	+ \$548,624
La Guaira ...	222	May, 1949	\$103,455	+ \$12,994	22	\$555,929	+ \$31,948
Leopoldina ...	1,902	28.5.49	43,288	+ 3,684	21	965,094	+ 155,382
Nitrate ...	382	30.6.49	18,929	+ 5,362	26	219,643	+ 72,618
Paraguay Cent.	274	24.6.49	\$109,721	+ \$21,871	51	\$5,308,019	+ \$1,678,305
Peru Corp.	1,059	May, 1949	256,274	+ 75,513	48	2,306,425	+ 399,101
Salvador ...	100	Apr., 1949	c182,000	+ c7,000	43	c1,790,000	- c6,600
Taltal ...	156	May, 1949	11,500	+ 2,560	48	99,755	+ 10,735
United of Havana ...	1,301	11.6.49	\$231,311	+ \$14,746	49	\$13,733,928	+ \$4,659,951
Canada	23,473	May, 1949	10,046,000	- 240,250	21	49,046,250	+ 1,857,250
Canadian Pacific	17,037	May, 1949	7,618,000	+ 566,750	21	36,541,750	+ 3,220,750
Various	202	May, 1949	27,322	+ 172	9	69,007	+ 11,130
Barsi Light*	204	Feb., 1949	104,917	+ 6,180	22	589,461	+ 9,141
Egyptian Delta	607	31.5.49	19,952	+ 791	9	117,539	+ 7,306
Gold Coast	536	Apr., 1949	225,932	+ 1,140	5	225,932	+ 1,140
Mid. of W. Australia	277	Apr., 1949	30,072	+ 199	43	290,377	+ 51,032
Nigeria ...	1,900	Mar., 1949	494,854	+ 92,981	48	5,719,011	+ 1,001,177
South Africa ...	13,347	11.6.49	1,491,563	+ 182,633	23	14,932,343	+ 1,443,481
Victoria ...	4,774	Feb., 1949	1,484,797	+ 54,817	35	—	—

* Receipts are calculated @ 1s. 6d. to the rupee